MILLERS FALLS CO.,

Hardware Manufacturers.

WAREHOUSE:
93 READE ST., NEW YORK.
H. L. PRATT, Prest.

FACTORY:
MILLERS FALLS, MASS.
L. J. GUNN, Treas.

CABLE ADDRESS:
"TIGNONA"

Catalogue No. 24.

CATALOGUE

No. 24.

MILLERS FALLS CO.

MILLERS FALLS, MASS.,

AND

93 READE STREET, NEW YORK,

U. S. A.

To the Trade

In presenting our Catalogue No. 24 we desire to call the attention of our customers to a few goods that are new since our last issue, viz.:

Auger Handle No. 5,	Page 6
Hand Drill No. 5,	" 9
Swivel Vise,	" 19
Ball Clamp Vise,	" 20
Hand Vise No. 2,	" 22
" " " 3,	" 23
Roller Bearing Jack Screws,	" 24
Hack Saw Frame No. 10,	" 35
" " " " 11 and 12,	" 36
Dehorning Saw,	" 36
Tool Holder No. 6,	" 48
Spoke Shave No. 2,	" 48
Knife Sharpener,	" 49
Grindstone No. 2,	" 61
Automatic Screw Driver,	" 65
Brace Screw Driver,	" 67
Blind Opener,	" 68
Hand Railer,	" 69
Cork Screw Lever,	" 69

These will be found of equally as good quality and finish as tools placed on the market by us at earlier dates. We are always glad to have our customers sample new goods, if in no larger quantities than $\frac{1}{12}$ dozens. A number of improvements have been made on goods shown in previous catalogues since our No. 23 was published, and there are more improvements to follow. Our constant aim is, to make the best goods in market and at a fair price.

Soliciting a continuance of your favors, we are

Very truly,

MILLERS FALLS CO.,

93 READE STREET,

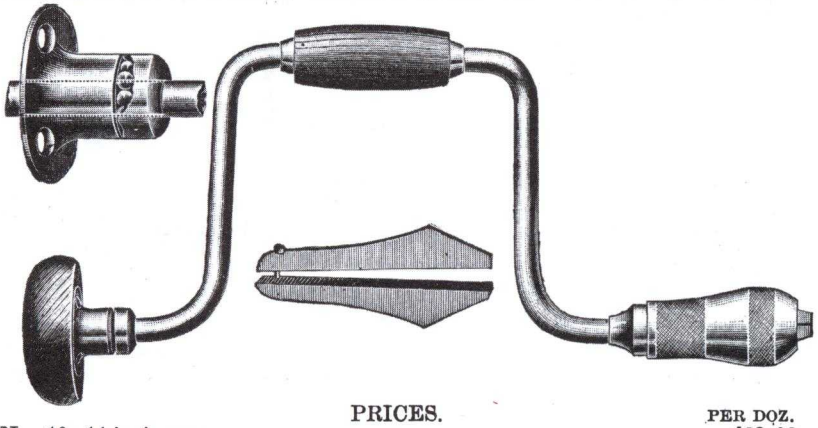
NEW YORK.

BARBER IMPROVED BRACES.

These Braces possess the following points of superiority: The Sweep is made from Steel. The Jaws are forged from Steel. The Wood Handle has brass rings inserted in each end so it cannot split off. The Chuck has a hardened Steel anti-friction washer between the two sockets, thus reducing the wear.

The head has a bearing of steel balls, running on hardened steel plates, so no wear can take place, as the friction is reduced to the minimum. The Brace is heavily Nickel Plated and Warranted in every particular.

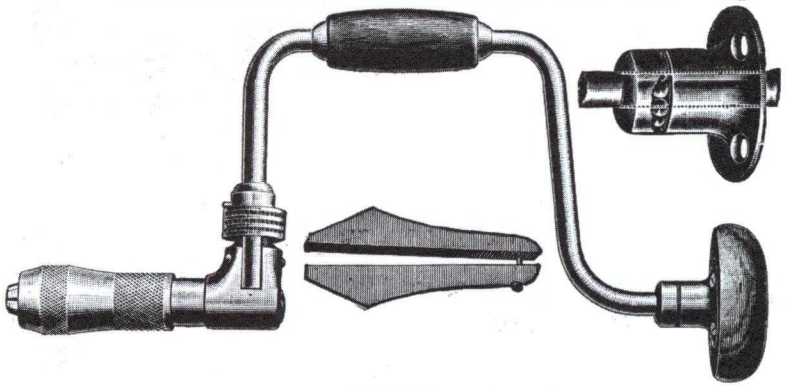
We endeavor to make these goods as nearly perfection as is possible in durability, quality of material and workmanship, and fineness and beauty of finish.



PRICES.	PER DOZ.
No. 10, 14 inch sweep	$33 00
" 11, 12 " "	30 00
" 12, 10 " "	27 00
" 13, 8 " "	24 00
" 14, 6 " "	21 00
" 15, 4 " "	20 00
" 16, 4 " " With Chuck, as on our Patent adjustable Tool Holder for Piano-makers' use.	20 00

This is the Barber Brace, with Amidon's Patent Jaws.

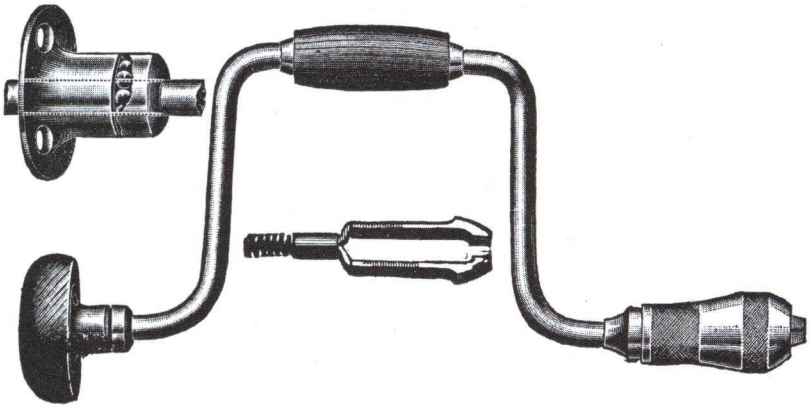
BARBER IMPROVED RATCHET BRACES.



PRICES.	PER DOZ.
No. 30, 14 inch sweep	$42 00
" 31, 12 " "	39 00
" 32, 10 " "	36 00
" 33, 8 " "	33 00
" 34, 6 " "	30 00

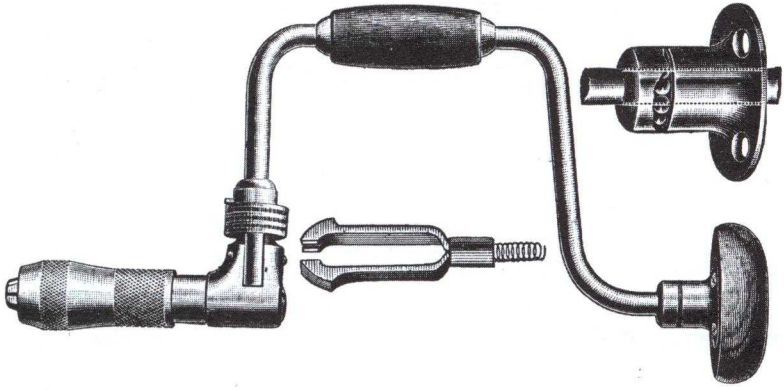
BARBER BRACES.

These Braces have same quality of material and finish as those described on page one. The difference being in style of jaw.



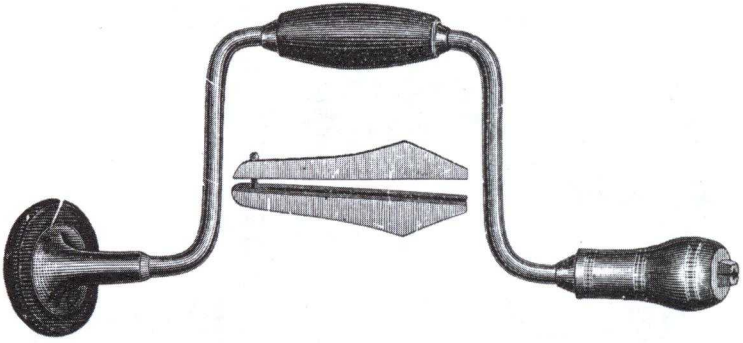
	PRICES.	PER DOZ.
No. 40, 14 inch sweep.	.....	$33 00
" 41, 12 " "	.....	30 00
" 42, 10 " "	.....	27 00
" 43, 8 " "	.....	24 00
" 44, 6 " "	.....	21 00

BARBER RATCHET BRACES.



	PRICES.	PER DOZ.
No. 61, 12 inch sweep	.....	$39 00
" 62, 10 " "	.....	36 00
" 63, 8 " "	.....	33 00

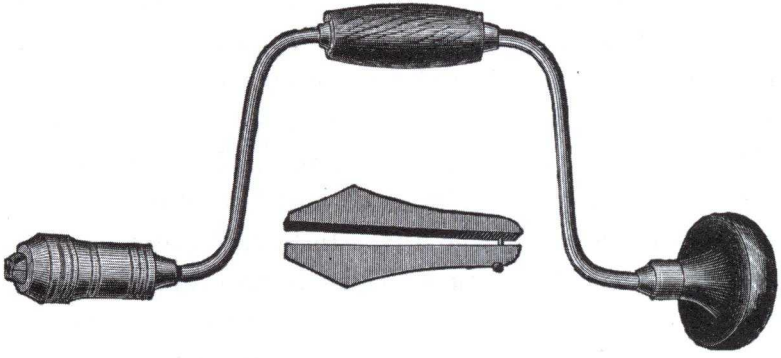
BARBER IMPROVED PATENT BRACE.



No. 21,	12 inch	sweep		per doz.,	$11 00
" 22,	10 "	"		"	10 00
" 23,	8 "	"		"	9 00
" 122,	10 "	"	Ratchet	"	18 00
" 123,	8 "	"	"	"	17 00

The Braces are intended to occupy a place midway between our highest and lowest price Grip Braces. They are made of Steel, polished, but not Nickel-plated. The heads and handles are Ebonized. The Jaws and Iron Quill are as seen in the Cut. They also have our new Anti-friction Steel Collar. The threads are all lathe-cut, and all parts of the Brace are made for durability.

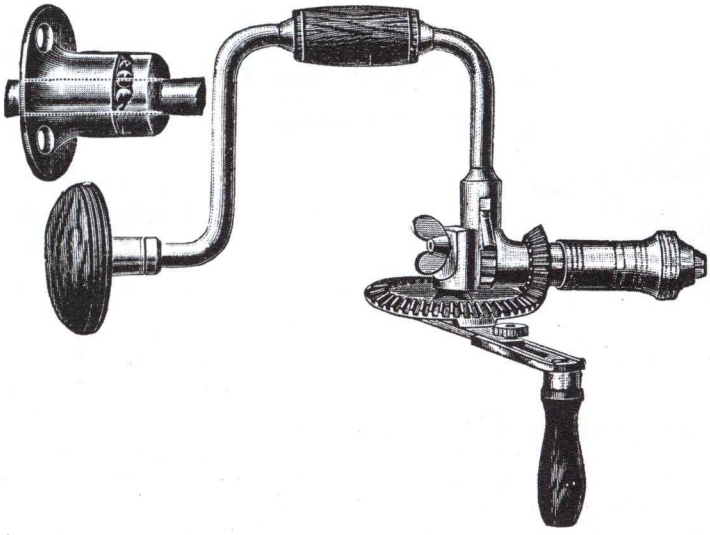
BARBER IMPROVED PATENT BRACE.



made of Steel, tumbled and not polished; the head and revolving handle are of hard maple. It is a good serviceable Brace, and cheaper than any other brace of the same quality in market.

No. 71,	12 inch	sweep		per doz.,	$8 00
" 72,	10 "	"		"	7 50
" 73,	8 "	"		"	7 00
" 82,	10 "	"	Ratchet	"	14 00
" 83,	8 "	"	"	"	13 50

DRILL BRACE WITH BALL BEARINGS.



This is a 10 inch sweep Ratchet Brace, with Gear Wheels speeded about three to one, to be used for drilling. When not needed, the Gear Wheel can be removed in one second, leaving a Ratchet Brace. This Brace is made of steel, and is heavily Nickel-plated, with Rosewood handle and Cocobola head. The jaws are of forged steel, and will center and hold firmly round twist drills from $\frac{1}{8}$ to $\frac{7}{16}$ of an inch in diameter. Also square shank Bits and Drills of all sizes. Also square and flat Screw-driver Bits. In fact, it will hold tool shanks in any size or shape. There is no other chuck in existence which will do this. It is our purpose to furnish everything in the line of Bit Braces, Breast and Hand Drills of a style and quality superior to anything else in the market.

With each Drill Brace we send an extra set of Forged Steel Jaws, mainly to be used for holding round twist drills less than $\frac{1}{8}$ of an inch in diameter.

Price of Drill Brace, complete.....per doz., $36.00

BARBER EXTENSION BIT HOLDER.

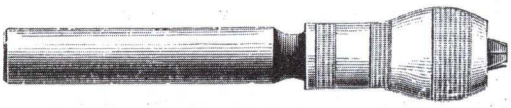
No. 1.

12, 15, 18, 21 and 24 inches.

Price, all lengths..... per doz., $15 00

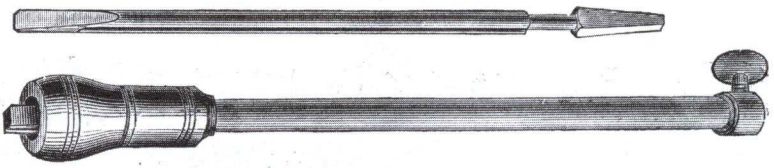
BARBER LATHE CHUCKS.

No. 2.



Price..... per doz., $18 00

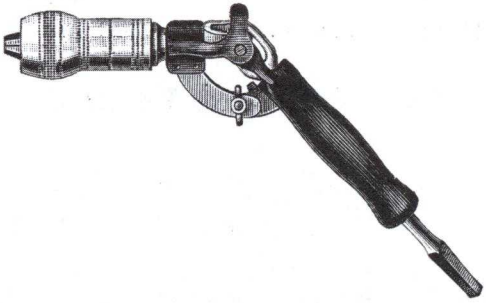
DOUBLE EXTENSION WITH SCREW DRIVER.



Half length, 14 inches. Whole length 21 inches.

Nickel-plated.. .....per doz., $24 00

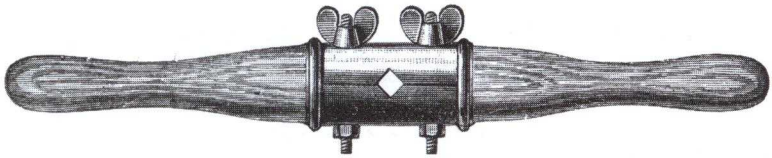
PATENT UNIVERSAL ANGULAR BIT STOCK.



The Universal Angular Bit Stock is presented to the public as a time economizer, to be used in connection with a Brace and a Bit for boring holes in places where the Brace and Bit alone could not be used. As will be seen, it can be placed in the many angles or positions between the upper and lower braces (represented in the above figure). The ability to vary the angles, either at the commencement or during the operation of boring a hole, is an important feature.

Per dozen $24 00

PRATT'S PATENT AUGER HANDLE, Nos. 1 & 2.

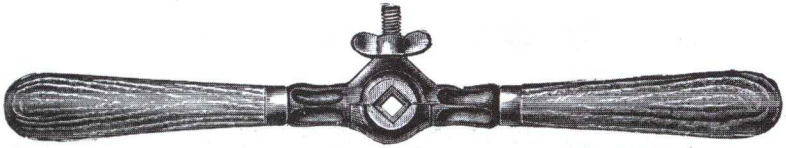


So far as we are aware, this is the only Auger Handle in market which will centre perfectly and hold Auger Shanks of all shapes and sizes. Only one handle is needed, as its range is from the largest to the smallest size Auger in use. A steel band, 3 inches long and $\frac{3}{16}$ thick, is made to fit the handle. This band is cut lengthwise into two equal sections, which are operated by the two steel screws with thumb nuts, as seen in the cut. These sections can be opened wide enough to let the Auger Shank pass in without removing the nut on the end. This Handle is very neat and substantial, and will be much in demand wherever introduced.

Price, per dozen, made of Ash Wood $6 00

No. 1, 14 inches long. No. 2, 17 inches long. Both of one price.

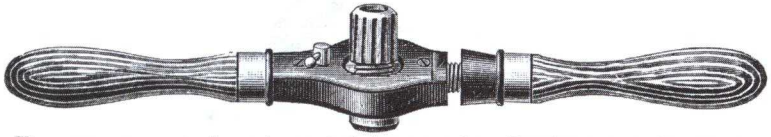
ROGERS' AUGER HANDLE, No. 3.



This age of iron has suggested an adjustable Auger Handle of iron, with wooden ends, so constructed as to center and hold perfectly all Auger Shanks of whatever shapes or sizes. Between the jaws of this handle are two spiral springs which will always open them wide enough to take in Auger Shanks with the nuts on, when the thumb nuts are unscrewed, making it a very convenient device to operate. The Handle is more compact than when made of wood, and can be taken apart at any time and laid away in small compass. The main body is made of malleable iron, with polished ash handles at the ends. The whole thing is very neat, light and substantial in appearance. We make this only in one size.

Length, 16 in.; weight, 21 oz. Price, per dozen.....$4.50.

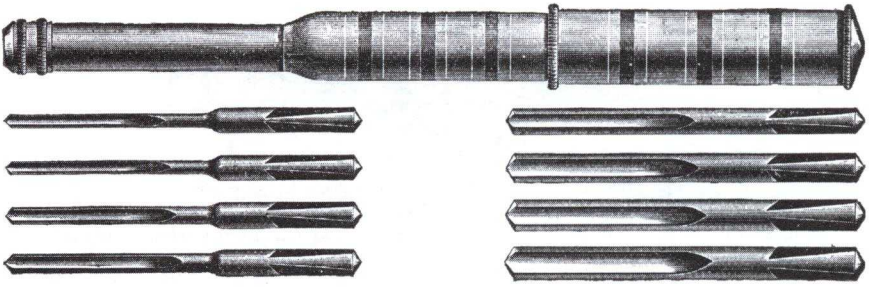
GUNN'S RATCHET AUGER HANDLE, No. 5.



For many years we have been studying to make a Ratchet Auger Handle which would take the place of all other kinds, the same as our Ratchet Bit Braces supplanted all other Braces. This tool is the result of our work. It will center and hold Auger Shanks of all sizes and shapes. It is not needful to change the hands from one end to the other when using this handle. It can be made stationary or to ratchet either way. One handle may be taken off when working in a narrow place or next to a wall. The working parts are of malleable iron and steel, and the handles of second growth ash. We send out an attachment with each handle, by the use of which the tool can be used as a Ratchet Handle Drill, doing work of a drill which costs much more money. Length, 16 inches; weight 1½ pounds.

Price, per dozen.... .....$15 00

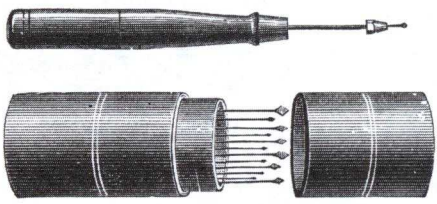
JOHNSON'S AUTOMATIC BORING TOOLS.



setting brads, finishing nails, screws, etc., eight bits accompanying each tool. It can be used in many places where the bit-brace, gimlet, or brad-awl cannot, and is superior to either for the purposes mentioned.

No. 0.	All metal, with 8 points	per doz.,	$24 00
" 1.	Solid Rosewood Handle, with 8 points	"	24 00
" 2.	Rosewood Handle, with cells for the 8 points.....	"	28 75
	Extra Points.....	"	72
	" " .....per set,		48

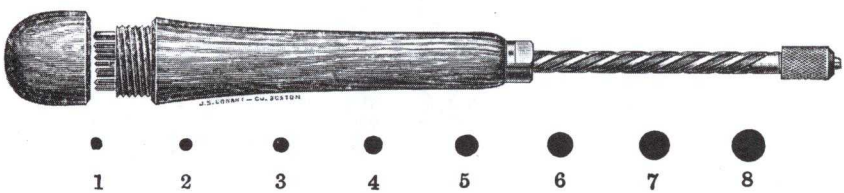
GRAVES' AUTOMATIC DRILL STOCK, No. 1.



This is a most complete tool for bracket-saw work. The stock is made of rosewood, with steel spindle. The drill points are easily adjusted by means of a brass thimble, which screws on the end of the spindle. It is easily worked with one hand, and will drill the most delicate wood without danger of splitting.

Price, with 12 Drill Points, assorted..... ... per doz., $9 00

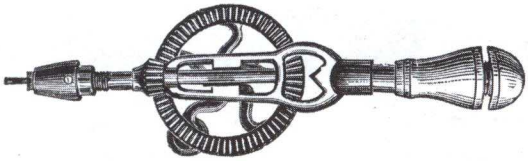
GRAVES' AUTOMATIC DRILL, No. 2.



No. 2 is a larger size, with hollow handle, and includes a set of 8 Drill Points the same size as shown above in the Johnson Drill.

Price, with eight Drill points.....per doz., $18 00

HAND DRILL, No. 1.



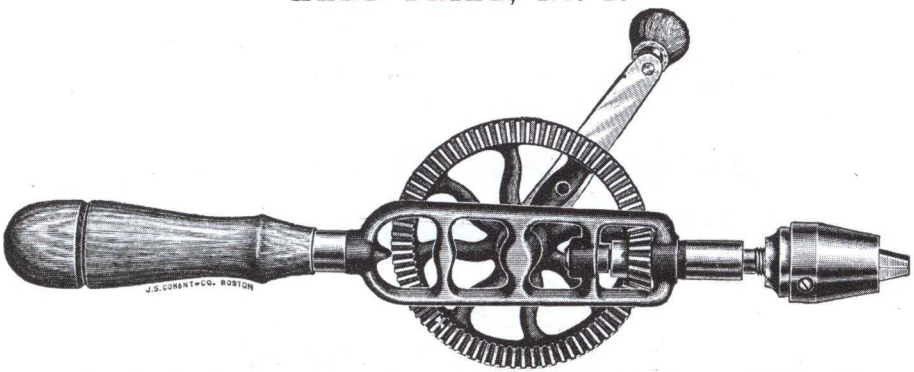
Six drill points with each of the above drill stocks.

These drill stocks are made of malleable iron, with steel spindles and rosewood head and handle. The jaws are of forged steel, and will hold perfectly any sized drills named below.

They are the only drill chucks in use which will hold Twist Drills from 1-32 to ¼ inch.

No. 1, Single Gear, hollow handle, nickel plated.....per doz., $15 00

HAND DRILL, No. 2.

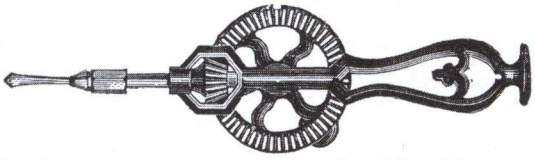


We have recently changed the style of our Hand Drill No. 2, as will be seen in cut.

This change has wrought a great improvement in the tool, as the working parts are brought nearer the centre. This Drill has cut gears and is provided with an adjustable Friction Roll, to prevent the gears from slipping or springing out of engagements. The Chuck will hold Drills up to one-fourth inch.

Price, including six points as shown at top of page 7..... ...per doz., $30 00

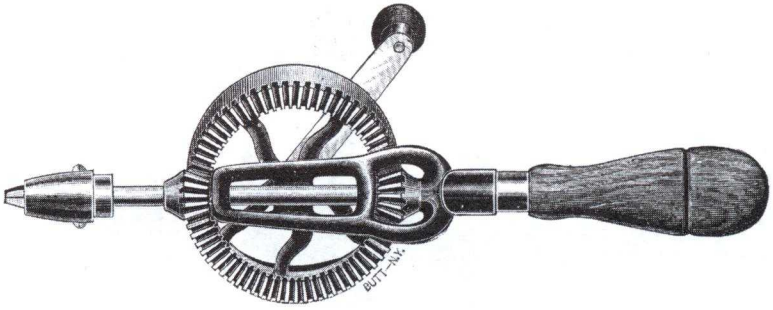
HAND DRILL, No. 4.



This Drill Stock is eight inches in length, and weighs eight ounces. It is made of iron, with rose-wood handle, and chuck for holding the drill points. This chuck is made on a new plan, and it centers and holds the drill perfectly. With each drill stock we send a box containing six superior drill points, of various sizes.

Price of Stock and Drills .....per doz., $6 00

HAND DRILL, No. 5.



We offer this Drill as substitute for numbers 1B–3 and 3B described in previous catalogues. No. 5 has all of the advantages of the other numbers mentioned, and in addition has a wide rimmed gear to be grasped between thumb and fingers when the drill is used for delicate work. In this manner it can be run without liability of breaking points.

It is double-geared, 11¼ inches in length, and weighs 20 ounces.

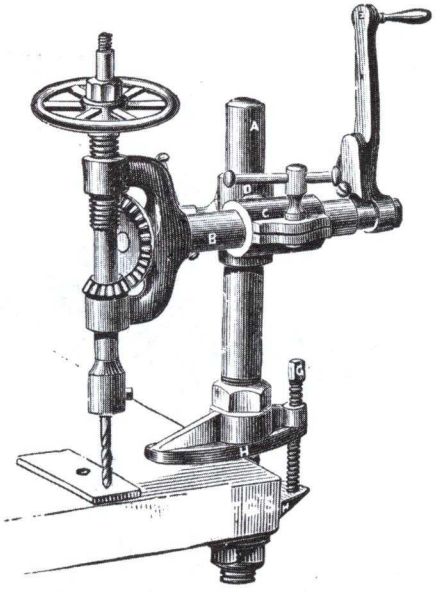
With the Drill we furnish six points of same style as are put up with our Automatic Borers.

Price, per dozen $18 00

Improved Patent Universal Angular and Ratchet Drilling Machine.

These Drilling Machines are now made of steel, and are first-class in all respects. For repair work in mills they are almost indispensable, as they can be attached to a broken machine without taking it apart, and swung around to drill at any angle.

By placing the crank on the drill spindle, it will work with a ratchet or without. We send a chuck with each machine, which will hold 1-16 to ¼ inch drills.



TWIST DRILLS.

We have constantly in stock Twist Drills (see page 13) which we will send by mail, postage paid, upon receipt of price, or they can be bought from dealers selling our VISE AND ANVIL DRILL and Drilling Machines.

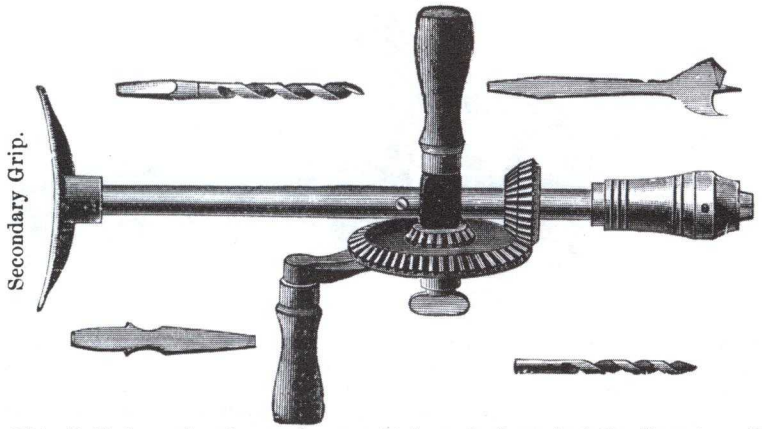
One Twist Drill, ¼ inch, with ¼ inch shank, is sent with each machine. For ¼ inch drills, and all larger sizes, the ½ inch shanks are recommended.

PRICE LIST.

No. 1.	Weight, 34 lbs.	Drills up to	⅝	inch hole				$20 00
" 2.	" 64 "	"	" 1	"	"	.....	.....	25 00
" 3.	" 108 "	"	" 1½	"	"	.....	.....	40 00

The No. 2 Drill has two sets of gears, making either speeded or geared back machine.

BREAST DRILL, No. 10.

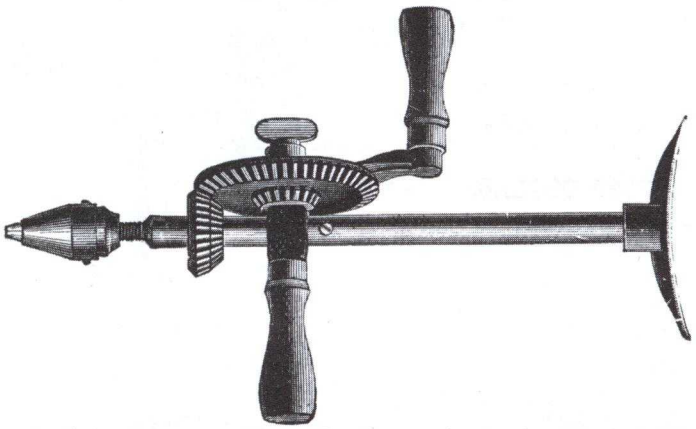


This Drill is made of round wrought iron, $\frac{5}{8}$ of an inch in diameter. The handles are rosewood, the head malleable iron, and the chuck jaws of steel. It has a changeable gear, one even, and the other speeded three to one. The change from one to the other can be made in one second. The chuck will hold any shape shank, round, square or flat, as seen in the cut. These tools are not sold with the drill stock, but are only put in to show the shape of shank which the chuck will hold.

This Drill Stock is heavily Nickle-plated, and presents a very beautiful appearance. It would be very attractive in a show window. This drill stock has cut gears. An extra set of steel jaws goes with each drill stock, for holding small round drills.

Price ..... per doz., $36 00

BREAST DRILL, No. 11.

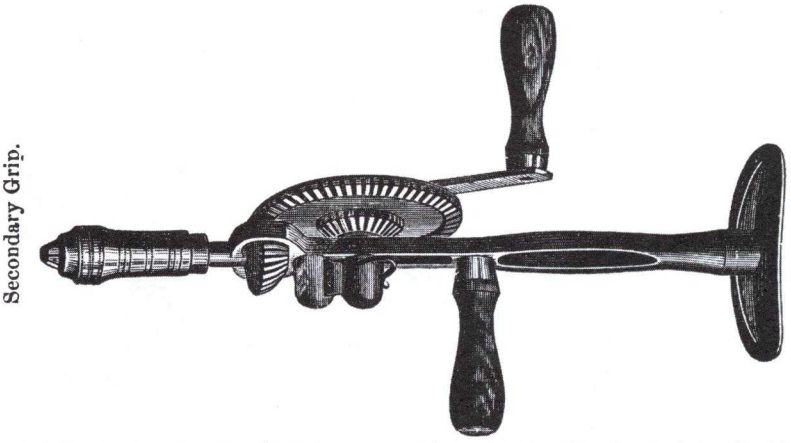


This Drill Stock is the same as No. 10, but the chuck will only hold round shank drills. Being limited in its range, it holds drills from 1-32 to $\frac{1}{4}$ inch very firmly and true, and is a most perfect tool, heavily Nickle-plated, with rosewood handles. The gears are cut.

Price.....per doz., $36 00

We are now putting a secondary grip on our No. 10, 12 and 13 Breast Drills, which works automatically, and will hold round twist drills perfectly. It adds much to the cost of goods, but nothing to the selling price.

BREAST DRILL, No. 12.

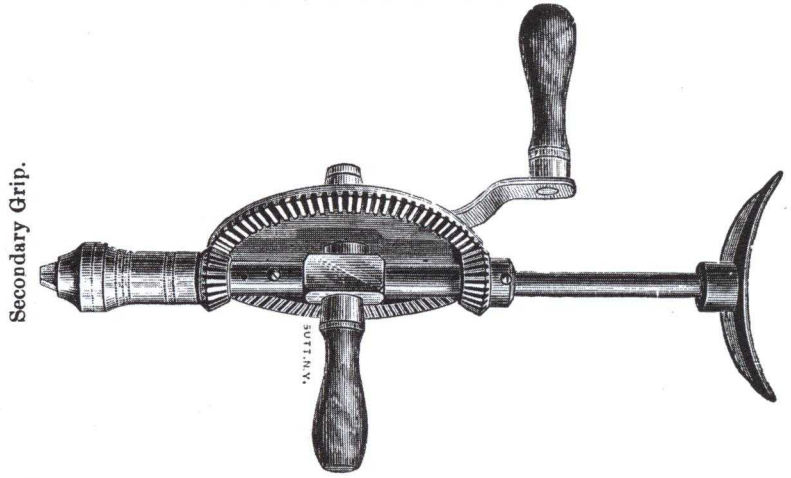


A roller is placed under the large gear wheel, which makes it equal to a double gear.

This is the Drill which we have made for many years and sold at $30 list. It has a Malleable Iron Stock, Japanned, Rosewood Handles, Polished and Plated Chuck, Changeable Gears, one even and the other 3 to 1. It has a Barber Improved Chuck with our recent improvement, which makes it hold perfectly tools of all shapes and sizes.

Price.....per doz., $30 00

BREAST DRILL, No. 13.



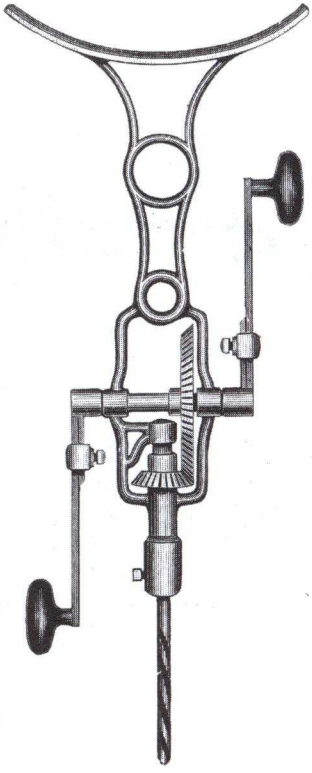
This is the largest sized Drill in market, the drive-wheel being 6 inches in diameter, giving a speed of 4½ to 1. It is double-geared and most perfect in every part. It has Cut Gears, Steel Stock, Rosewood Handles, Steel Jawed Chuck, which will hold any size square and round tool shanks. It is heavily Nickle-plated, and really the most expensive Breast Drill in the market.

Price.....per doz., $48 00

Both Drill Stocks on this page have extra steel jaws for holding small round drills.

DOUBLE CRANK BREAST DRILL.

No. 14.



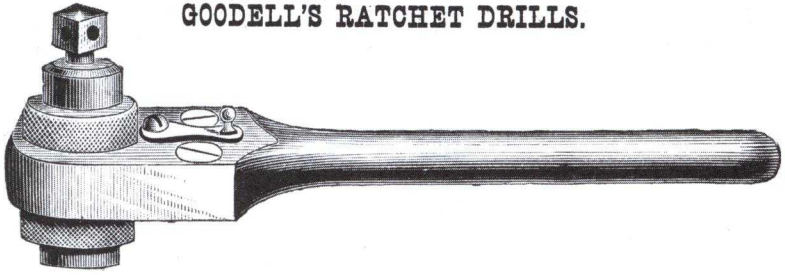
To meet the demand for a more powerful and more durable breast drill, we now offer this Double Crank Machine, No. 14. It has very heavy cut gears, speeded about two to one, and double cranks, which are adjustable to any length, and by which the power and speed may be regulated as desired.

The Breast Plate is twelve inches long, and curved to fit the shape of the body, thus preventing it from swinging around when in use. The hole in the spindle which receives the drill is one-half inch in diameter. We sell Twist Drills of all sizes with one-half inch shank to fit this Machine. We also make a chuck to fit it which will hold all round and square drills below 7-16 inch. This is a tool which will stand very hard usage, and never wear out.

PRICES.

Double Crank Breast Drill, No. 14, $5 00
Adjustable Chuck to fit same (specify if wanted) - 1 00
Twist Drills to fit this machine (See page 13).

GOODELL'S RATCHET DRILLS.



This is the latest Improved Ratchet Drill and the best finished one in market, being polished and Nickel-plated throughout.

	No. 1.	2.	3.
Lever,	10 in.	12 in.	14 in.
Price, each,	$4 00	$4 50	$5 00

PRICE OF UNIFORM SHANK DRILLS.

Diameter.	Length.	Price each.	Diameter.	Length.	Price each.
1–8	5 1–8 in.	$0 45	7–16	7 1–4 in.	$0 90
5–32	5 3–8 "	45	15–32	7 1–2 "	95
3–16	5 5–8 "	50	1–2	7 3–4 "	1 00
7–32	5 7–8 "	55	17–32	8 "	1 10
1–4	6 1–8 "	60	9–16	8 1–4 "	1 20
9–32	6 1–4 "	65	19–32	8 1–2 "	1 30
5–16	6 3–8 "	70	5–8	8 3–4 "	1 40
11–32	6 1–2 "	75	21–32	9 "	1 50
3–8	6 3–4 "	80	11–16	9 1–4 "	1 60
13–32	7 "	85	3–4	9 3–4 "	1 85

The Shanks to the above Drills are 2½ inches long and ⅜ inch in diameter, to fit hole in spindle to Anvil Drill, and Drilling Machines.

We also have in stock STRAIGHT SHANK DRILLS, from 1-16 to 1-4 inch, which can be used in the Chuck accompanying the Anvil Drill, and Drilling Machines.

STRAIGHT SHANK DRILLS.

Diameter	Length	Price, doz.	Price each	Diameter	Length	Price, doz.	Price each
1–16	2½	$1 00	$0 09	19–64	4⅜	$3 90	$0 35
5–64	2⅝	1 10	10	5–16	4½	4 20	37
3–32	2¾	1 20	11	21–64	4⅝	4 50	40
7–64	2⅞	1 30	12	11–32	4¾	4 80	42
1–8	3	1 45	13	23–64	4⅞	5 10	45
9–64	3⅛	1 60	15	3–8	5	5 40	48
5–32	3¼	1 80	16	25–64	5⅛	5 70	50
11–64	3⅜	2 00	18	13–32	5¼	6 00	53
3–16	3½	2 20	20	27–64	5⅜	6 40	55
13–64	3⅝	2 40	21	7–16	5½	6 80	59
7–32	3¾	2 65	23	29–64	5⅝	7 20	63
15–64	3⅞	2 90	26	15–32	5¾	7 50	65
1–4	4	3 15	28	31–64	5⅞	7 75	67
17–64	4¼	3 40	30	1–2	6	8 00	70
9–32	4½	3 65	32				

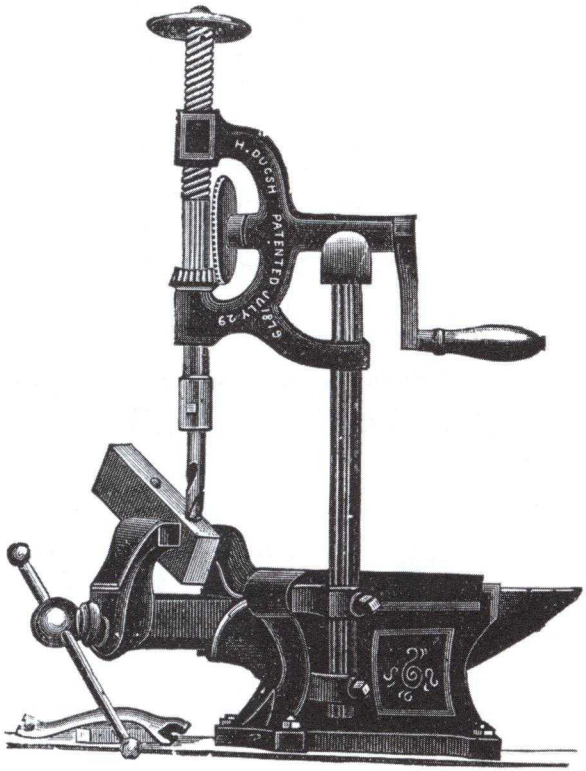
BIT STOCK DRILLS FOR METAL OR WOOD.

Diameter	Price per dozen	Price each	Diameter	Price per dozen	Price each
2–32	$1 50	$0 14	14–32	$ 8 80	$0 75
3–32	1 65	16	15–32	9 60	82
4–32	2 10	20	16–32	10 30	87
5–32	2 60	24	17–32	11 00	92
6–32	3 10	29	9–16		1 20
7–32	3 60	33	5–8		1 35
8–32	4 10	38	11–16		1 50
9–32	4 70	43	3–4		1 65
10–32	5 40	48	13–16		1 80
11–32	6 30	54	7–8		1 95
12–32	7 20	62	15–16		2 15
13–32	8 00	68	1		2 35

Our Bit Stock Drills will fit any brace in the market, and will drill Steel, Iron, or other Metals, as well as wood. They are not injured by contact with screws or nails, and will bore straight any kind of wood without splitting it.

ANVIL, VISE AND DRILL.

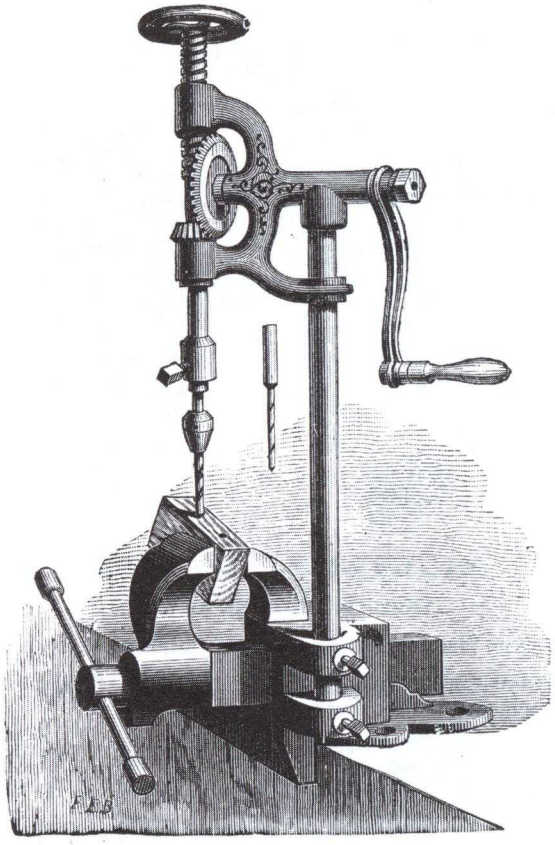
INSERTED STEEL VISE JAWS.



This machine was first made by a practical mechanic for his own use, as he could find nothing in the market that would answer his purpose. When finished, so many other mechanics wanted it that he was minded to get it patented and put it on sale. When brought to our notice, we saw at once its great utility, and bought the patent for the whole United States. The Anvil has a steel face, 4 x 8 inches. Vise Jaws, 3½ inches wide, and steel faced. Steel Drill Press with adjustable chuck to hold ¼ inch drills and all smaller sizes. We have for sale Twist Drills, from ¼ to ¾ inches, with uniform ½ inch shanks, as seen in the cut opposite, which just fit into the spindle when the chuck is removed; one of these drills, for a sample, goes with each machine. See list of prices of drills, page 13.

VISE AND DRILL.

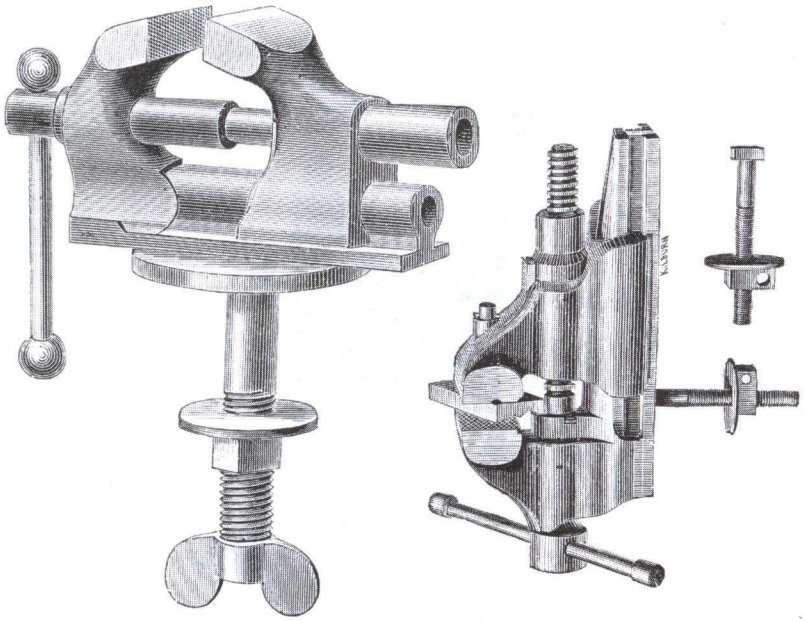
INSERTED STEEL VISE JAWS.



The article to be drilled can be held firmly in the vise, so as to be drilled at an angle. A bolt of iron or soft steel can be drilled accurately down through the centre, which cannot be done by hand with any other tool. When the Drill is sold without the Anvil, it is attached to an Offset Vise, as cut above. This Vise has steel-faced jaws 3½ inches wide, which entirely overhang the screw and the box which covers it. For many purposes this is the most convenient Vise in use.

Weight of Anvil, Vise and Drill,	80	pounds.	Price,	$18 00
" " " and Vise,	60	"	"	10 00
" " Drill Press,	20	"	"	8 00
" " Offset Vise and Drill,	61	"	"	15 00
" " " " alone,	41	"	"	7 00

MILLERS FALLS VISE. **PIPE VISE.**



MILLERS FALLS VISE.

INSERTED STEEL JAWS.

Union and Backus Vise Combined. Heavy or Chipping Vise, Covered Screw.

If seats are wanted, please so mention in your orders. Prices at Millers Falls, Mass., or 93 Reade Street, New York.

Width of Jaw.	Without Iron Seats.	With Iron Seats Extra.	Weight.	Width of Jaw.	Without Iron Seats.	With Iron Seats Extra.	Weight.
1½ in.	$3 00	$0 50	3½ lbs.	4 in.	$10 00	$1 25	56 lbs.
1⅞ "	3 50	50	5 "	4½ "	12 50	1 50	66 "
2 "	4 00	50	9 "	5 "	17 00	1 75	75 "
2½ "	5 50	75	22 "	6 "	25 00	2 00	116 "
3 "	7 00	1 00	39 "	7 "	30 00	No Seat	160 "
3½ "	9 00	1 00	47 "	"			

PIPE VISE.

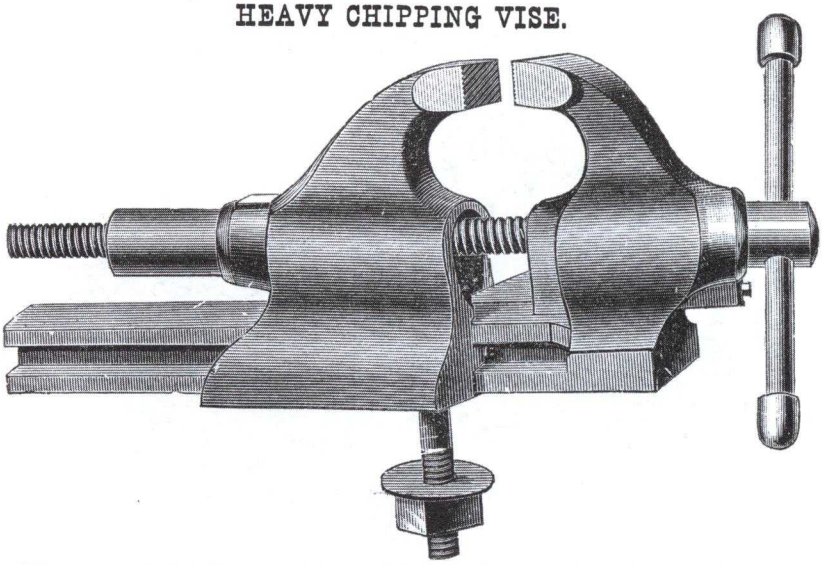
Width of Jaw, 4 inches		Weight, 57 lbs		Price,	$17 50
" " " 5 "		" 79 "		"	23 00
" " " 8 "		" 153 "		"	33 00

"Pipe" Vise, showing extra Jaw in place. The extra jaw has corrugated grooves of different sizes, by means of which pipe of any dimensions may be firmly held without injury, and without the necessity of screwing up the Vise excessively tight. The extra jaw may be removed in a moment when the Vise is wanted for other work, (see cut). This Vise is made extra heavy and strong, with very heavy jaws, (see cut).

The 8-inch allows the extra jaw to be used on either side, so as to hold large pipe perpendicularly. The 4 and 8-inch have covered screws.

A bolt for securing the Vise to the bench, with patent nut, is included in all the sizes without extra charge.

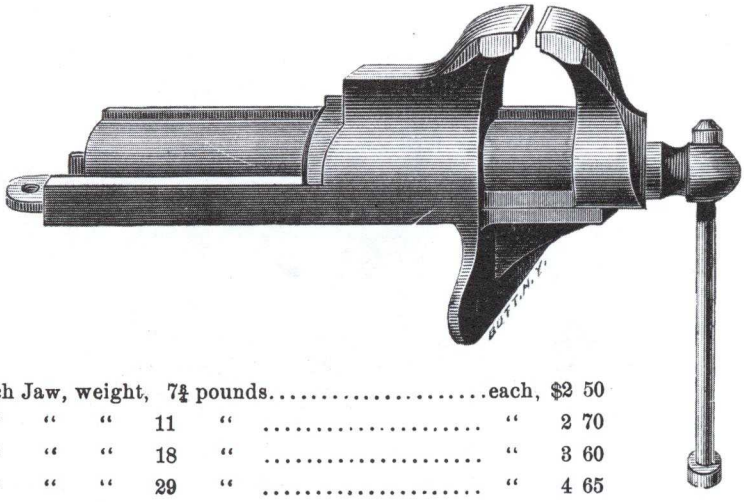
HEAVY CHIPPING VISE.



These seven inch Vises are of the Old Union Pattern. The demand for them has been very large, and we have never yet known one to fail of giving entire satisfaction.

Width of Jaw.	Weight.	Price
7 inches	169 lbs	$30 00

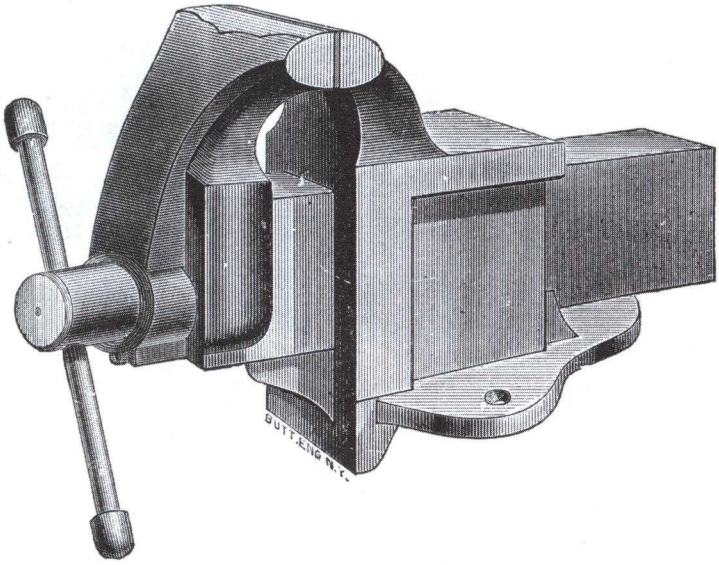
OVAL SLIDE PARALLEL VISE.



2	inch Jaw,	weight,	7¼	pounds		each,	$2	50
2½	"	"	11	"		"	2	70
3	"	"	18	"		"	3	60
3½	"	"	29	"		"	4	65
4	"	"	36½	"		"	6	70
4½	"	"	54	"		"	9	65

MECHANICS' VISE.

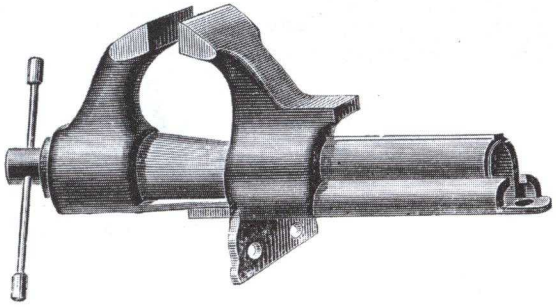
INSERTED STEEL JAWS.



Width of Jaw.	Opens.	Weight.	Price, each.
1½ inch	2½ inches	3½ pounds	$3 00
2 "	3½ "	8 "	4 00
2½ "	3½ "	18 "	5 50
3 "	4½ "	32 "	7 00
3½ "	4½ "	42 "	9 00
4 "	5 "	50 "	10 00
4½ "	5 "	60 "	12 50
5 "	6 "	76 "	17 00

This is probably the best square Box Vise in market, being first-class in every particular. The Jaws are steel-faced, and the Anvil is also faced with steel, which we believe is not the case with any other Vise in use.

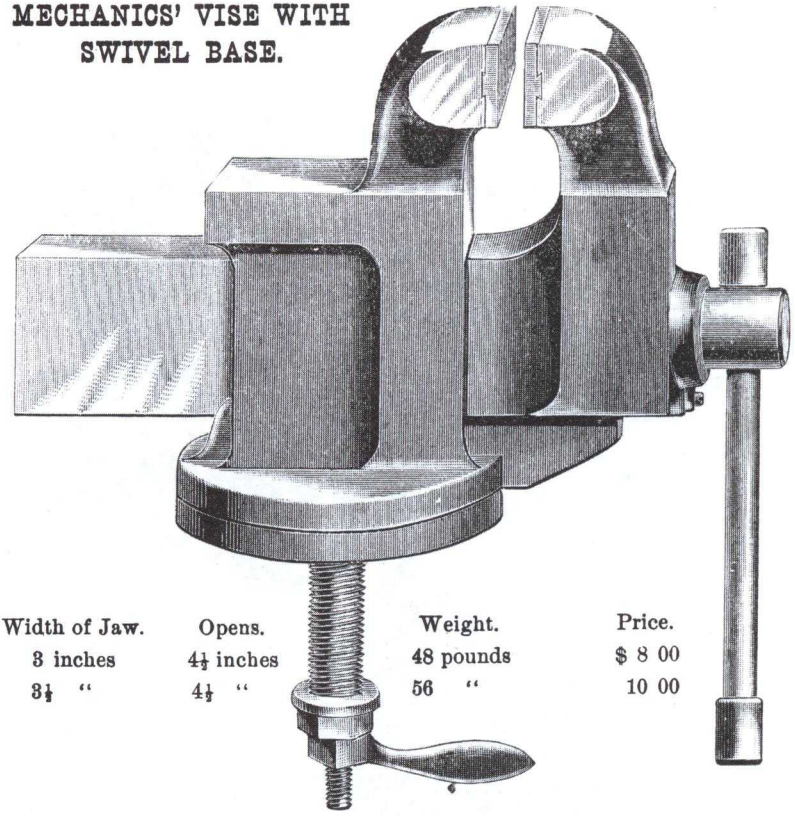
OVAL SLIDE COACH VISE.



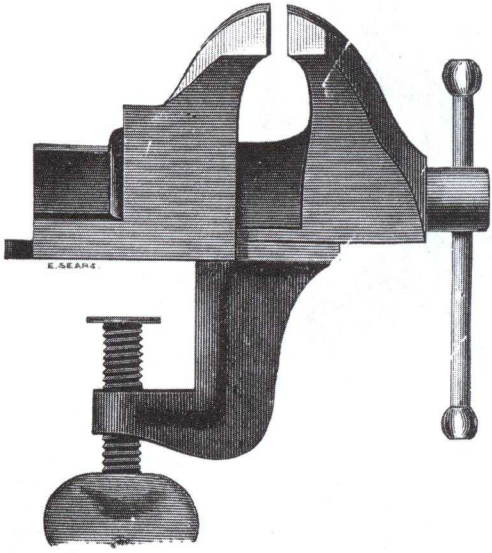
Width of Jaw, 4 inches; Depth of Jaw, 2 inches; Opens 9 inch; Depth from screw cover to top of Jaw, 5½ inches; weighs 43 lbs.

Price ..... each, $8 00

MECHANICS' VISE WITH SWIVEL BASE.



Width of Jaw.	Opens.	Weight.	Price.
3 inches	4½ inches	48 pounds	$ 8 00
3½ "	4½ "	56 "	10 00



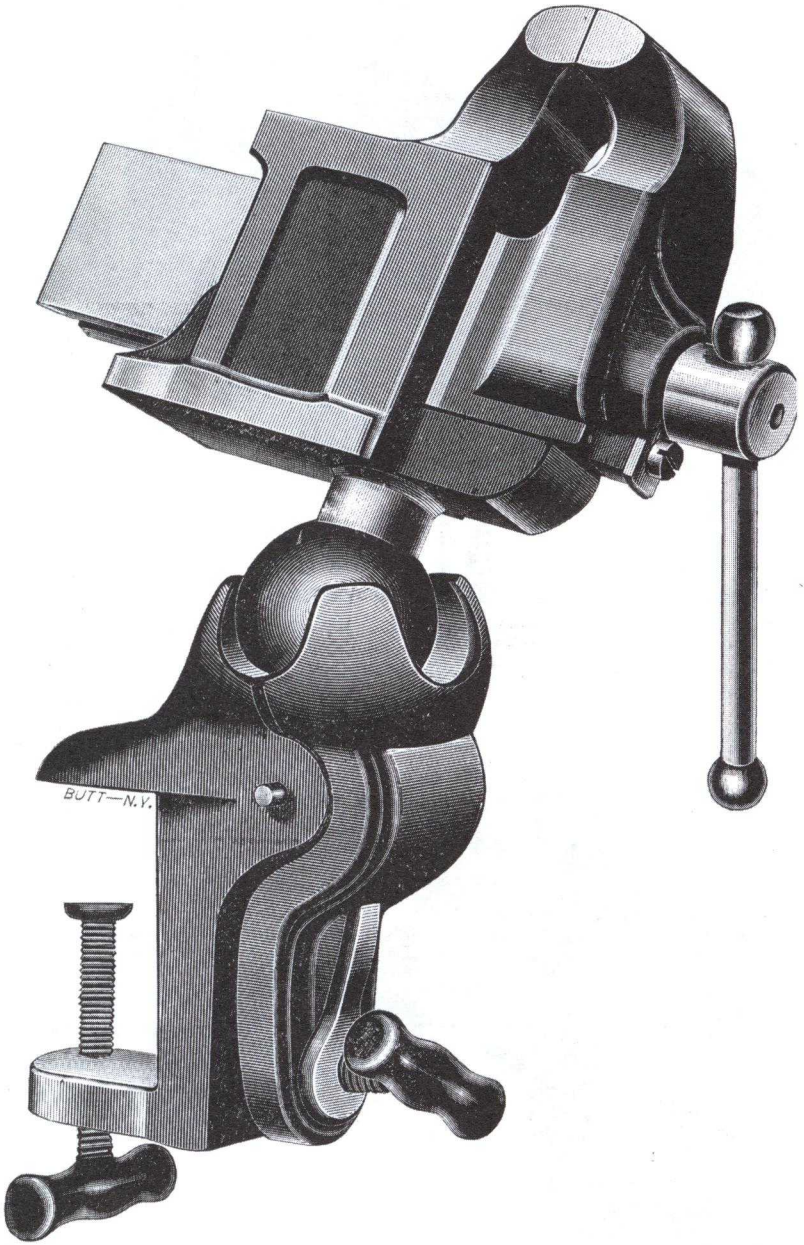
OVAL SLIDE VISE.

This Vise has a clamp by which it can be attached to a table, and can be removed at pleasure by turning a Thumb Screw.

1½ width of Jaw, each, $1 25
1¾ " " " 1 50

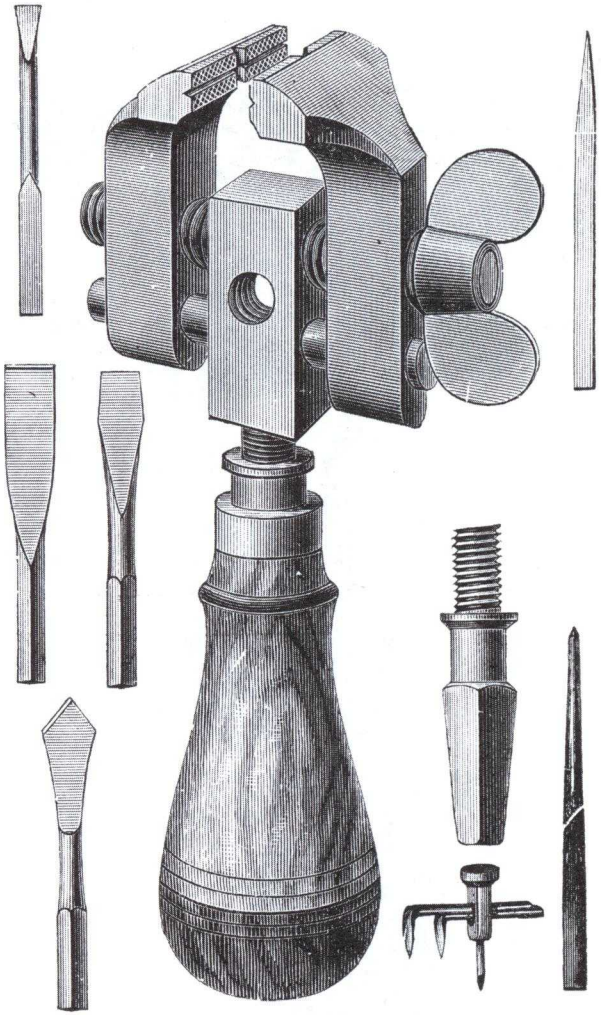
BALL CLAMP VISE.

FOR FILERS USE.



Width of Jaws.	Opens.	Price
1½ inches	2½ inches	$4 00
2 "	3½ "	6 00
2½ "	3½ "	7 50

ALFORD HAND VISE, No. 1.

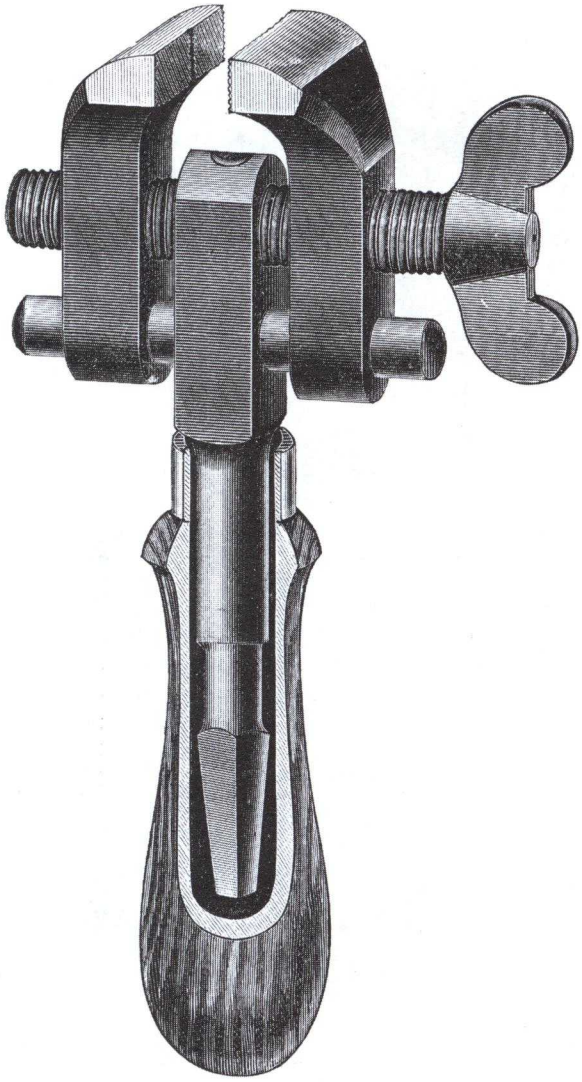


The jaws are of forged and tempered steel, the screw and cross bar are also made of steel, the handle is made of rosewood with lignum vitæ cap. It is hollow, and the bit shank and tools seen in the cut are placed inside. The blades bent at right angle, are used for cutting washers.

The Vise Jaws are 1¼ inches wide and open 1¼ inches. They will centre and hold tools firmly of any shape. The Vise is one-third larger than the cut, while the tools are full size. The handle can be unscrewed from the Vise and the bit shank put in its place, to be used with a bit brace for any kind of boring, drilling or cutting washers. The handle can also be screwed into the Vise at right angles with its usual position, which is desirable for many kinds of work.

Price, with all the tools..... ....per doz., $21 00

HAND VISE, No. 2.

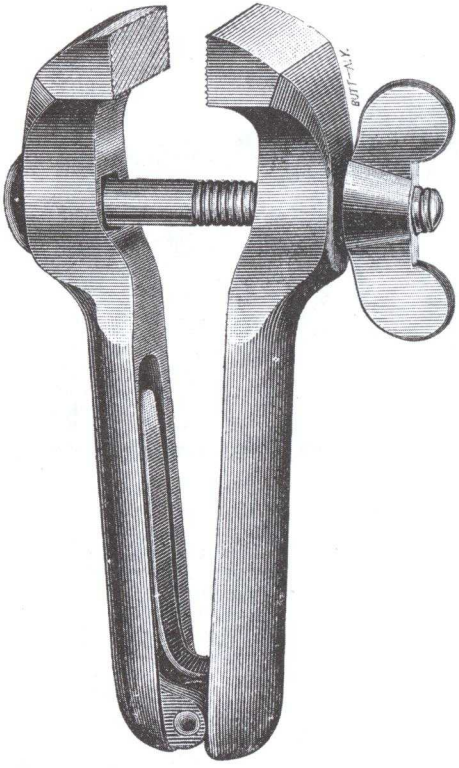


This is a forged Steel Vise, with a Cocobola Handle. It is blue finish with polished jaws. As seen in the cut the handle may be taken off and the shank placed in a bit brace. The jaws are creased to hold a Twist Drill. It may be used as a Vise, Wrench or Drill Chuck. It is a very substantial tool.

Width of Jaws.....	1½ inches.	Jaws open.....	1¼ inches
Diameter of Screw.....	½ "	Width of Thumb Nut.	1⅛ "
Length over all.....	6¼ "	Weight.....	17 ounces.

Price ..... per doz., $18 00

HAND VISE. No. 3.

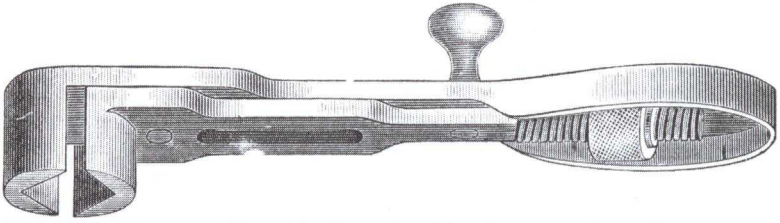


This Vise is made of solid steel castings, well tempered, with a heavy spring inside to open the jaws, which are closed with a bolt and nut, as seen in the cut. It has a blue finish with polished jaws.

The jaws are 1½ inches wide, and open 1½ inches. Length of Vise, 5 inches. Weight, one pound.

Price..... .....per doz., $9 00

ADJUSTABLE WAGON WRENCH.



This Malleable Iron Adjustable Wrench will turn any nut on a wagon from ⅛ to 1¼ inches square. It grips a nut so tightly that it cannot fall out. When made fast to the Axle Nut the knob on the back side acts as a crank to whirl it off or on rapidly. It is the best wagon wrench in the world, and also a good Hand Vise.

Price ... .per doz., $3 00

JACK SCREWS.

Both roller bearing, and ordinary style. If roller bearing Jacks are wanted so specify on orders, otherwise ordinary style will be sent.

Order by numbers and thus avoid errors.

We have experimented much with ball bearing Jacks, and found them very satisfactory when not heavily loaded. Now, instead of balls we put in rollers as seen in cut. These rollers will stand any load that the Jack will carry, and are not liable to get out of order. We have thoroughly tested these Roller Jacks with a spring balance and find a saving of 75 per cent. of power needed to lift a given weight.

The price is about 10 per cent. more for Roller Jacks, and the gain is 75 per cent. This ought to insure their sale as fast as the facts become known.

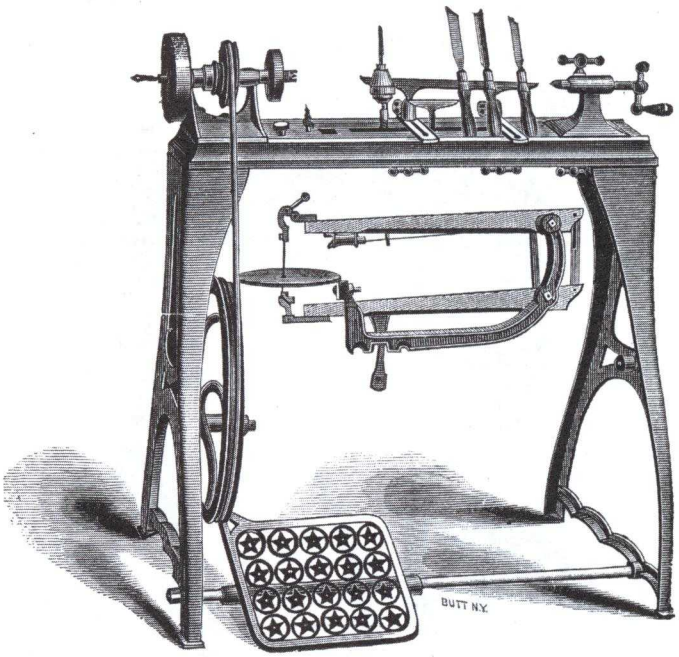
		Diam. of Screw.	Height of Barrel.	Height of Jack when turned down to the lowest point.	Net rise.	Whole Height.	Weight.	Price.
No.	1.	1¼ in.	6 in.	8 in.	4 in.	12 in.	10 lbs.	$2 50
"	2.	1½ in.	7 in.	10 in.	6 in.	16 in.	11¾ lbs.	3 00
"	3.	1½ in.	7½ in.	10 in.	5 in.	15 in.	18½ lbs.	3 25
"	4.	1½ in.	9 in.	12 in.	7 in.	19 in.	18 lbs.	3 75
"	5.	1½ in.	10½ in.	14 in.	9 in.	23 in.	25 lbs.	4 00
"	6.	1¾ in.	9 in.	12 in.	6 in.	18 in.	24 lbs.	4 25
"	7.	1¾ in.	10½ in.	14 in.	8 in.	22 in.	28¾ lbs.	4 50
"	8.	1¾ in.	12½ in.	16 in.	10 in.	26 in.	33½ lbs.	5 00
"	9.	1¾ in.	15 in.	18 in.	12 in.	30 in.	37½ lbs.	5 50
"	10.	2 in.	8½ in.	12 in.	5 in.	17 in.	31 lbs.	5 50
"	11.	2 in.	10½ in.	14 in.	7 in.	21 in.	36 lbs.	6 00
"	12.	2 in.	12 in.	16 in.	9 in.	25 in.	41½ lbs.	7 00
"	13.	2 in.	16 in.	20 in.	13 in.	33 in.	50 lbs.	8 00
"	14.	2½ in.	10 in.	14 in.	8 in.	22 in.	48 lbs.	8 50
"	15.	2½ in.	12 in.	16 in.	10 in.	26 in.	53½ lbs.	9 50
"	16.	2½ in.	15½ in.	20 in.	14 in.	34 in.	69 lbs.	11 00
"	17.	2½ in.	20 in.	24 in.	18 in.	42 in.	85 lbs.	13 00

CAR JACKS.

		Diam. of Screw.	Height of Barrel.	Height of Jack when turned down to the lowest point.	Net rise.	Whole Height.	Weight.	Price.
No.	17½.	2 in.	6 in.	10 in.	4 in.	14 in.	20 lbs.	$5 00
"	18.	2 in.	8½ in.	12 in.	5 in.	17 in.	31 lbs.	5 50
"	19.	2 in.	10½ in.	14 in.	7 in.	21 in.	36 lbs.	6 00
"	20.	2 in.	12 in.	16 in.	9 in.	25 in.	41 lbs.	7 00

These Jacks have cast iron barrels, with steel screws cut in a lathe. There are no better Jacks made.

GOODELL LATHE AND SAW ATTACHMENTS.



This Lathe is patterned almost exactly after the latest improved lathes now used in the best machine-shops and pattern-makers' rooms. The large driving-wheel has two grooves, of varying depths, on its face, to give a change of speed, as the belt runs from it to the cone pulley on the lathe head. The lathe head is provided with a two-inch face-plate, a spur center, a screw center, for turning cups, and also with a very nice drill chuck to hold from 1-32 to 1-4 inch round twist drills for drilling wood or iron. It also has on the outer side of the pulley a $4\frac{1}{2}$ x $\frac{7}{8}$ inch solid emery wheel and a drill spindle, with set screw, to hold drill points for wood drilling. The tail stock has a screw feed center, which is secured at any point desired, by a clamping arrangement like that on the modern engine lathes. It is also provided with a long and short tool rest, five turning tools, wrench, drill points, etc., etc. Swing of lathe, 5 inches. Length of bed, 24 inches. Distance between centers, $15\frac{1}{2}$ inches.

The Scroll Sawing attachment, as seen in the cut, is secured to the lathe bed by one bolt, and can be put on or off at pleasure. This attachment has all of the improvements found in any of our scroll saws.

This lathe is thoroughly built and highly finished, the planed and polished parts being Nickel-plated. Weight, 56 lbs.

Price of Lathe and Lathe Tools	$10 00
" " Scroll Saw Attachment	2 00
" " Circular " "	1 00

In ordering please state whether the saw attachments are wanted.

For parts and prices see page 31.

COMPANION LATHE AND SAW ATTACHMENTS.

We are making this machine especially for the *Youth's Companion.*

It is fully illustrated in their premium list. The publishers of this paper were the first to inaugurate scroll sawing in this country, and it has been through their efforts mainly that the business has had such great popularity.

They have learned exactly what kind of a machine is most wanted, and recently planned this one to meet the demand. The lathe is large enough to do good work, and is supplied with all the tools and instructions needed for putting it into successful use.

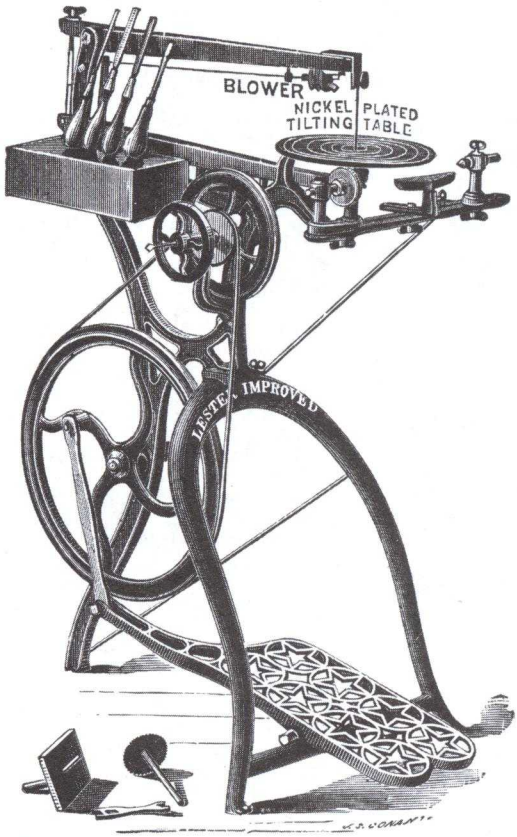
The Lathe Bed is 24 inches long, 15 inches between centers, and 5 inches swing. The Scroll Saw can be taken off by loosening one bolt. The quality and price of this Companion Saw will ensure it a very large sale.

Price of Lathe and Tools	$7 00
" " Scroll Saw Attachment	1 50
" " Circular " "	1 00

State in ordering if either or both of the attachments are wanted.

For parts and prices see page 31.

LESTER IMPROVED SAW.



This machine is adapted alike to the use of either *amateurs* or *mechanics*, and will be found very convenient in *pattern making.*

The Lester Saw is made of iron and steel, except the Pitman and Arms, which are ash. The *Iron work* is nicely japanned black, with stripes of red and gilt. The *Wood work* is varnished, bringing out the beautiful grain of the ash.

The *Driving-wheel* is 15 inches in diameter, and weighs 13 pounds. The *Treadle* is made of *Iron*, from a new and handsome pattern.

The *Scroll Sawing Attachment* is provided with a *Tilting Table* for inlaid work, the arms swinging 18 inches in the clear. A Dust Blower which works automatically. A roller inserted in the table back of the saw which makes it run perfectly true. The clamps will hold the coarsest or finest saw perfectly, while they are made adjustable to the right or left, or backwards and forwards, so that the blade may be kept in line. This saw will cut lumber from one-sixteenth inch to one-half inch in thickness.

The Circular Saw Attachment consists of a saw three inches in diameter, and an iron table, three by four and one-half inches. This saw will cut lumber up to one-half inch.

The machine is also furnished with a *Solid Emery Wheel* and *Drilling Attachment*, accompanied by six best Stubbs Steel Drills, of assorted sizes.

The *Lathe Attachment* is provided with iron ways and rests, steel centers, and three fine steel turning tools. Length of bed, 15 inches. Distance between centers, 9 inches. Swing, 3 inches. Length of slide rest, 4 inches.

The following parts are supplied with each machine *viz.*: Six Saw Blades, One Wrench, Screw Driver, Two sheets of Designs, and a nice box for the small tools.

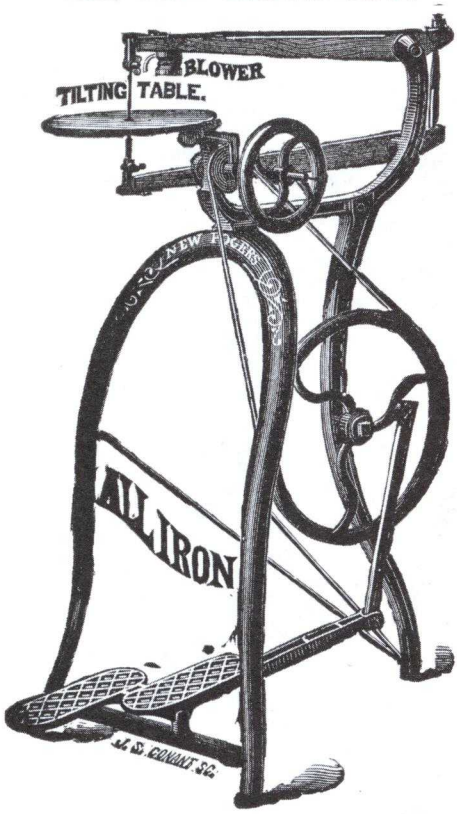
When shipped it is taken apart and packed in a box, but can easily be set up by following the directions accompanying each machine.

Price for the above, with Nickel-plated Table and Saw Guide	$10 00
Price for the Saw only, without Lathe and Circular Saw, Nickel-plated Table	8 00
When desired we furnish with the Lathe a very nice Drill Chuck for working metals and a Tail Stock with Screw Center, for ... Extra	2 00
We furnish the Scroll Saw Guide alone for	25
We also furnish a larger *Table for Circular Saw*, 6 by 7 inches, provided with a guide for sawing straight edges, for ... Extra	50

For parts see page 32.

The roller which we now insert in the table at the back of the blade makes our $10.00 Saw do just as good work as a saw which runs in guides and costs $20.00. It not only does as good work, but runs much easier. Our new Rubber Blower is by far the best one now in use.

THE NEW ROGERS SAW.



Price of No. 2 Rogers Saw, **$4.00**

Price of No. 1 Rogers Saw, with balance of *Iron* instead of *Emery*, and with *Tilting Table Japanned* instead of Nickel-plated, - - - - - - - - - **3.50**

For parts see page 32.

The latest improvements on this Saw are Pratt's Rubber Positive Blower, a new Clamp for holding the Saw Blades, and a roller inserted in the table back of the Saw, which makes it run perfectly true.

This season we have added all the improvements that our ingenuity can suggest, and have no hesitancy in declaring our New Rogers to be the BEST CHEAP SAW offered to the public.

The entire frame-work is made from iron, painted and japanned black, and ornamented with red and gilt stripes.

The arbors, etc., are made of steel, and are carefully gauged and fitted to their bearings.

The Arms and Pitman are of the best *Selected Ash*.

ALL PARTS MADE TO INTERCHANGE.

While our Jig Saw possesses *every improvement* and *advantage claimed* for any other in the market, we further claim the following points of superiority, *viz.:*

1. The *Bearings to the Arms* are carefully sized to bring them in perfect line. (This is a vital point in the construction of any Jig Saw.)

2. We provide each machine with a *Dust Blower*, which is a very *great advantage*.

3. Our Machine has a *jointed* Stretcher Rod, which allows the operator to throw the upper arm out of the way when adjusting his work or saw. This joint also permits the machine to work much more freely than with a straight iron rod.

3. Our clamps have a *hinged jaw*, which overcomes the disagreeable raking overthrow of the blade, which is unavoidable when the saws are secured rigidly to the arms. Saw blades are not nearly so liable to break when clamps have this joint. Thus a *large percentage* of the *expense* of running the saw is saved. Besides this, the saw runs *much easier*, the swing coming at the *hinge* instead of bending the blade at each stroke of the saw.

5. The Balance Wheel is 4½ inches in diameter, with a handsome spoke center, and a *Rim of solid Emery*, (No. 70,) ⅝ x ¾.

6. Our attachment for *Drilling* is on the *Right Hand* side of the machine, which for convenience, is an obvious advantage.

7. We use *no pins* in the construction of our machine, but prefer the durability of nicely fitted *screws* and *bolts* in securing each part.

8. Each machine is *set up* and *run* and *carefully inspected* before leaving our works. It is then taken down and shipped in boxes.

These points of superiority are neither possessed by nor claimed for any other Cheap Saw.

While the NEW ROGERS SAW is very rich, though not gaudy in appearance, it has been more especially our object to make, for the least possible money, a saw characterized for its Compactness, Strength and Durability, ease of action, and firmness when in operation.

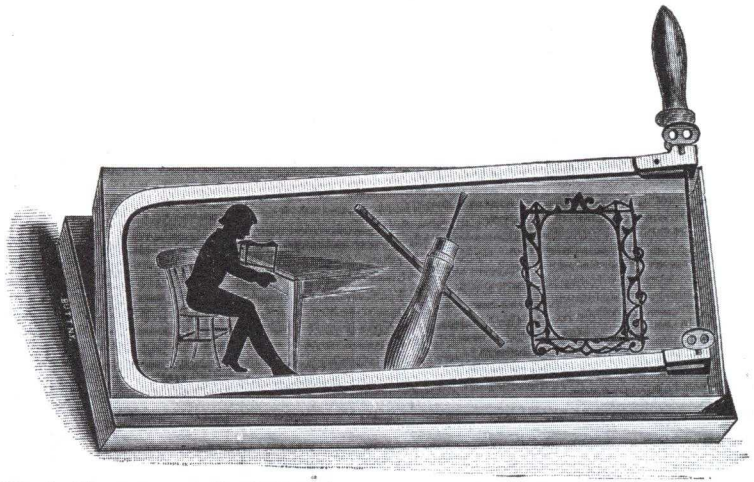
With each machine we give 12 Saw Blades, Wrench, Sheet of Designs, and Three Drill Points. The Saw alone weighs 25 lbs.; Saw and Box together, 42 lbs.

CRICKET SAW.

To meet the demand for a cheap and good Foot Power Saw, we have made an All Iron Machine which we offer for $2.50. For Scroll Sawing alone it is about as good as the higher price Saws, and the finish is the same as our Lester and Rogers Saws. It has an Iron Tilting Table, Second Growth Ash Arms, eighteen inches long, Improved Clamps, &c. Weight of Saw, seventeen pounds; weight when boxed, thirty-five pounds. Boxed for shipping without extra charge.

Price, - - - - $2.50

BRACKET SETS.



No. 1. Pleasure and Profit Set, frame rough nickeled, with Japanned handle, box same size and same contents as No. 2.

Price..... ...per doz., $10 00

No. 2. These sets are packed in paper boxes, and embrace a Spring Steel Saw Frame, polished and nickel plated, 5 x 12 inches, having patent Clamps for holding the Saw blades, rosewood handle. Three sheet designs, embracing a great variety of fancy and useful articles; twelve Saw Blades, one Awl, one Sheet of Impression Paper, and full directions for using the saw.

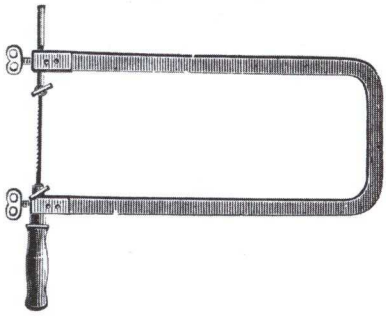
Price.....per doz., $15 00

PATENT BRACKET SAW FRAMES.

WOOD HIGHLY POLISHED.

Prices 12 inch Rosewood.....per doz., $9 00
" 12 " Birch..... " 6 00

SPRING STEEL.

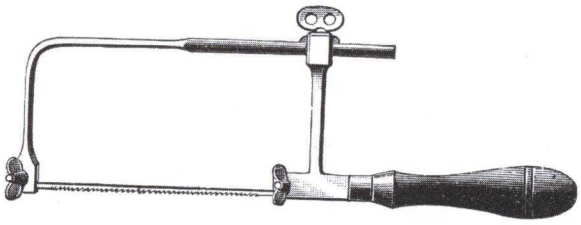


8 inch.....per doz., $13 20
10 " ..... " 14 40
12 " ..... " 15 60
14 " ..... " 16 80
16 " ..... " 18 00

PRICE LIST OF FANCY WOODS.

PLANED TO FOLLOWING THICKNESS.		⅛ inch.	3-16 inch.	¼ inch.
Black Walnut	per foot	8c.	9c.	10c.
White Holly	"	9	10	11
Poplar	"	4	5	6
Plain White Maple	"	5	6	8
Oak	"	7	8	10
Cherry	"	7	8	10
Red Cedar	"	8	10	12
Spanish Cedar	"	8	10	12
Mahogany	"	10	12	14
Bird's Eye Maple	"	12	15	16
Cocobola	"	16	18	20
Rosewood	"	16	20	25
Amaranth	"	16	20	25
Satin Wood	"	20	25	30
Hungarian Ash	"	30	40	50
Tulip	"	30	40	50
Ebony	"	40	50	60

JEWELERS' SAW.



This Saw is made of forged spring steel, with rosewood handle. It is nicely polished and nickel-plated, and will hold saws from one to six inches in length.

Price, per dozen, - - - - - - - - $9 00

Prices of Goodell and Companion Lathe Parts.

NAME OF PARTS.	Companion	Goodell
Lathe Bed	$ 75	$ 75
Legs, each (2)	75	75
Treadles	50	50
" Rod	15	20
" Caps, each (2)	5	5
Driving Wheel	1 25	1 25
" " Bolt	15	15
Emery "	40	40
Head Block	20	25
" " Spindle and Face Plate	25	25
" " " Cone Pulley	15	20
Tail "	20	25
" " Spindle and Crank	20	30
" " " Binder	10	15
Long Rest	20	30
Short "	10	15
Rest Sockets, each (2)	15	15
Spur Centre	20	20
Screw Centre for Cups	15	15
Star Chucks	....	2 00
Saw Attachment Arm Casting	50	50
Arms per pair	30	30
Table	60	60
Stretcher	15	15
Clamps per pair	35	35
Bolts	3	5
Turning Tools (5)	...	1 25
" " (3)	75	...
Arm Bolts and Nuts	6	6
Belt	15	15
Drill per doz.	50	50
Drill Screws each	2	2
Pitman, Long	10	10
" Short	5	5
Pitman Screws	5	5
Screw Driver	25	25
Blower	25	25
Table Bolt	3	3
Wrench	6	6
Roller Saw Guide	20	20

Lester Saw Repairs.

Arms, per pair, -	$0 30
Arm Bolts and Nuts,	6
Balance Wheel, -	50
Belt, - - -	15
Brace, - - -	10
Circular Saw, - -	25
" " Arbor,	15
" " Table,	12
Clamps, per pair, -	35
Drills, per doz., -	50
Drill Screws, each, -	2
Drive Wheel Arbor,	15
Drive Wheel, - -	1 25
Emery " -	40
Frame, - -	1 50
Front Leg, - -	85
Lathe Bed, - -	35
" Head Stock,	25
" Tail "	16
" Rest, - -	5
" " Socket,	10
" Pulley, -	10
" Tail Centre,	10
" Spur, - -	20
Lower Arm Guide,	5
Locking Bolts, -	3
Pitman, Long, -	10
" Short, -	5
Pulley, - -	10
Pitman Screws, -	5
Rest Socket Bolt, -	5
Roller Saw Guide, -	20
Screw Driver, -	25
Scroll Saw Table, Nickel,	65
" " Japanned,	30
" " Guide,	20
Spindle and Crank,	20
Stretcher, - -	15
Stove Bolts, each,	2
Treadle Caps, per pair,	$0 10
Treadle, - -	50
Tool Box, - -	12
Blower, - -	25
Table Bolts, - -	3
Thumb Nuts, - -	5
Thumb Screws, -	5
Turning Tools, -	75
Wrench, - -	6

Rogers Saw Repairs.

Arm Bolt, - -	$0 02
Arm Castings, -	40
Arms, per pair, -	30
Back Leg, - -	30
Balance Wheel, Iron,	25
" " Emery,	40
Belt, - - -	15
Brace, - - -	15
Blower, - - -	20
Crank and Spindle,	20
Crank Screw, -	5
Clamps, per pair, -	25
Drill Screw, -	2
Drive Wheel Bolt and Nut,	10
Drive Wheel, -	50
Front Leg, - -	60
Headless Screws, -	2
Locking Bolt and Nut,	5
Pitman, - -	5
" Screw, -	5
Pulley, - -	10
Roller Saw Guide, -	20
Stretcher, - -	15
Stove Bolt, - -	2
Table, Nickel Plated,	60
" Japanned, -	40
Table Bolt, - -	3
Treadle, - -	25
Wrench, - -	6

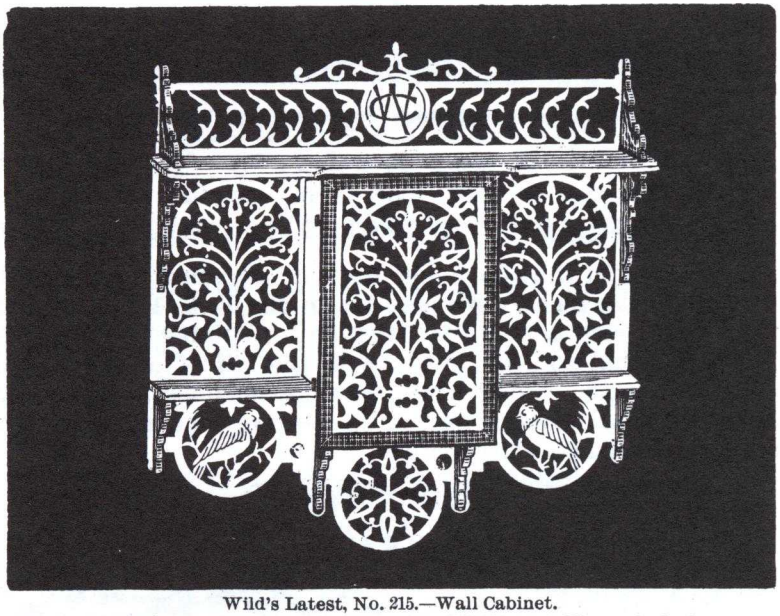
BRACKET SAW BLADES.

We have dealt in all kinds of imported and American blades, but our trade has gradually settled down to the Star Bracket Saw Blade, until at present hardly any other kind is wanted. We not only supply this country, but export large quantities to England, France and Germany. We are free to say that these goods are much the best in use.

THE STAR ★ SAW BLADES.

		Per Gross.
1		
2	Nos. 000 to 6, -	$1 00
3	" 7 - -	1 10
4		
5	" 8 - -	1 20
6	" 9 - -	1 30
7		
8	" 10 - -	1 40
9	" 11 - -	1 50
10	" 12 - -	1 60

DESIGNS FOR SCROLL SAWING CLOCK MOVEMENTS, Etc.



Wild's Latest, No. 215.—Wall Cabinet.

We are publishers of Bowman's, Russell's, Wild's and Morton's designs, comprising 703 in number, and are agents for Hope's, Ware's, Pomeroy's and Trump's, 688 in number.

We also carry a stock of clock movements of a variety of styles and sizes, suitable for cases made from designs mentioned above; also mouldings for trimming cases, boxes, &c.

Catalogues, showing designs and mouldings in miniature, and describing clock movements will be furnished on application.

STAR ★ SAWS.

It is cheaper to buy a new saw than to file an old one. As our saws are never to be filed, they are tempered so high that one will last four times as long as an ordinary saw, with one filing. This will be a very great saving in money, and also in the delay of filing. Look at the prices below, and you will never file another saw of this kind.

We fully warrant all saws marked with a star and bearing our name.

These saw blades are all as they came from the tempering furnace.

Their strength and temper would be much injured by any subsequent polishing.

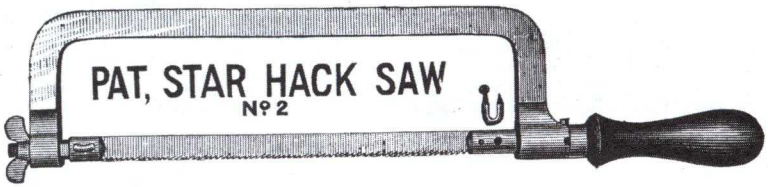
Take notice that blades and frames are listed separately, and order what you want of each kind.

STAR HACK ★ SAW BLADES.

With 14 or 23 points. See note following.

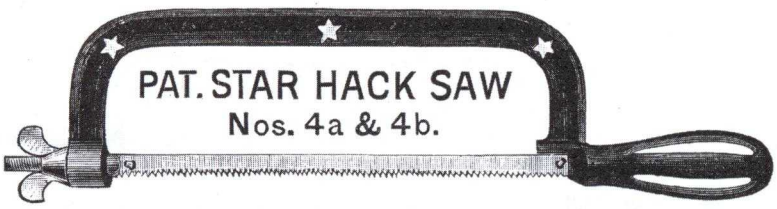
Length of Blade,	6,	7,	8,	9,	10,	11,	12,	Assorted. 6 to 9
Price per dozen,	55c.	60c.	65c.	70c.	85c.	95c.	$1.05	65c.
" " gross,	$6.60	7.20	7.80	8.40	10.20	11.40	12.60	7.80

NOTE: The blades in the above list are our standard goods with 14 teeth to the inch. We also make the 8, 9, 10, 11 and 12 inch blades with 23 teeth to the inch for cutting tubing, thin sheets of metal and for brass work, the prices of each kind being the same. Both kinds have a good set. In filling orders we shall always put in the coarse blades, unless the fine ones are particularly named.



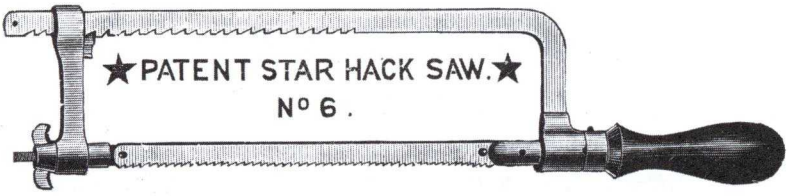
No. 2, solid frame, to hold 8 inch blades only, and face them in four directions. Polished and nickel-plated. Cocobola Handle.

Price, - - - - - - per doz., $8 40



This No. 4 is a Pat. Cast Iron Frame, and so constructed as to face blades in four different directions. The pins which hold the blade are fast in the frame, and cannot drop out. It is a very stiff and desirable Frame with Japan finish.

No. 4 A, for 8-inch blades..... per doz., $3 00
" 4 B, " 9 " " ..... " " 3 00

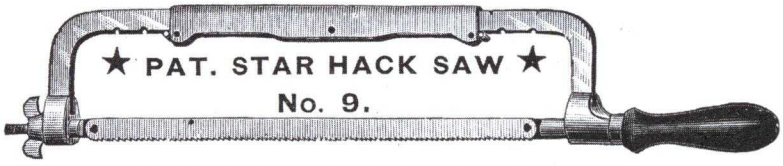


This is the stiffest Frame we make. It is highly polished, heavily nickel-plated, and will face the blades in four directions.

The handle is ebonized.

This No. 6 Frame will hold all blades from 6 to 12 inches.

Price of No. 6 Frame..... per doz., $12 00



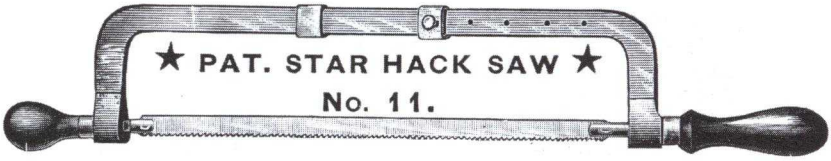
This frame holds blades from 8 to 12 inches in length. It is an extension frame covered by a steel sheath, as seen in the cut. The sheath makes it very stiff, and at the same time very light. It is polished and nickel-plated. The blades may be faced in either direction. We sell this frame at the same price of the No. 0 in our former Catalogue, and expect it will take the place of the old 0 and 1, as it seems to be a great improvement on these.

Price..... per doz., $12 00

We offer this as the best Extension Frame in market. It is light and quickly adjusted, having strength in the middle, where strength is needed. It is made of tempered steel, polished and nickel-plated. The handles are Cocobola Wood, highly finished.

It carries blades 6-7-8-9-10-11 and 12 inches long.

Price..... per doz., $12 00



This frame has a ball handle at forward end which will recommend itself. In all other respects the frame is the same as No. 10.

Price.....per doz., $13 50

A prominent feature of this frame is that the entire length of the blade can be used without liability of injuring the hand on back stroke. It takes blades from 6 to 9 inches, and faces them in four directions.

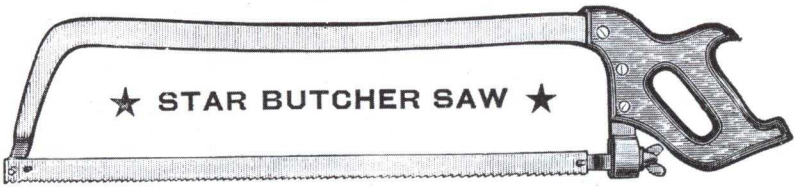
Polished and nickel-plated, and with Cocobola Handle.

Price.....per doz., $9 00

Such quantities of our Star Kitchen Saws have been used for dehorning purposes, we have been prompted to make a regular Dehorning Saw, as shown in cut. The frame is steel with rough nickel-finish, has a beech handle, and star blade 10 inches in length.

Price.....per doz., $5 00
" extra blades..... " " 85

STAR BUTCHER SAW.



It has been discovered that a Butcher's Saw Blade can be made and filed at the factory by machinery at a less cost than is usually paid for one filing; also that they can be tempered so that they will cut about six times as long as the old kind, which have to be left soft enough to file. The Star Blades can take a file temper, as they are to be thrown away when dull. After cutting bone for six weeks, one of these blades will cut off a half-inch rod of iron twenty times.

This will make a complete revolution in the Butcher Saw business, as fast and as far as the facts become known.

We also make Star Butcher Saw Frames, at moderate prices, to fit all lengths of blades.

All goods marked with a Star, and bearing our name, are fully warranted.

We will protect from loss any of our customers who buy these saws on our recommendation.

PRICE OF FRAMES WITHOUT BLADES.

Flat crucible steel backs, tempered and polished. Beech handle, polished edges, three nickeled screws:

Inches,	14	16	18	20	22	24	26
Per dozen,	$1 00	$12 00	$13 00	$14 00	$15 00	$16 00	$17 00

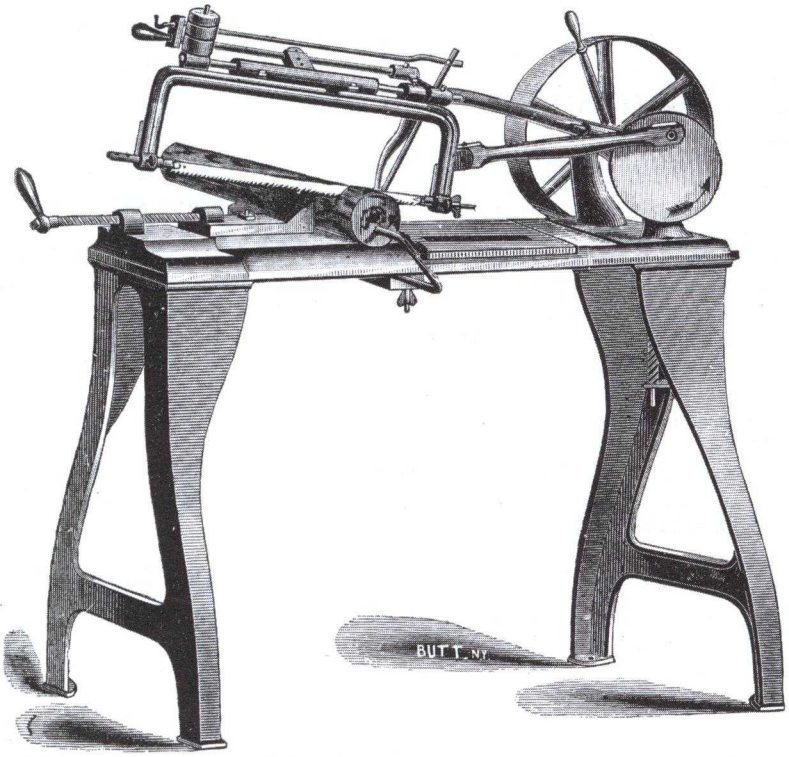
STAR BUTCHER ★ SAW BLADES.

Length.	Width.	Gauge.	Teeth to inch.	Per doz.	Per Gro.
14 inches.	5/8 inch.	24	9½	$1 08	$12 96
16 "	5/8 "	24	9½	1 08	12 96
18 "	5/8 "	24	9½	1 20	14 40
20 "	5/8 "	24	9½	1 20	14 40
22 "	5/8 "	24	9½	1 32	15 84
24 "	5/8 "	24	9½	1 32	15 84
26 "	5/8 "	24	9½	1 44	17 28

These Steel Frames are polished, with Beech Handles. They have what most other kitchen saws do not have: an arrangement for straining the saw, which adds much to their value.

Price of 14 inch frames, with one blade. .....per doz., $4 00
" " 14 " blades.... .... " " 1 08

THE STAR POWER SAW.



This Machine is designed for cutting iron and steel. It will cut any size up to 4½ inches in diameter, and any shape that can be held in the vise. It also cuts piping very nicely. We do not claim great speed in cutting, but metal can be cut much more rapidly in this Machine than can be done in a Lathe or Planer, or by heating and cutting with a "Blacksmith's Hack," and at a trivial cost. By its use a good percentage of metal is saved, as the pieces cut are left smooth, and no labor or metal is lost in squaring up, as is the case after heating and cutting with the "Hack." This saving in Hobson's, Jessop's or other high cost steels, is quite an item in stock, to say nothing of the labor.

For cutting up Die Blocks, and a thousand and one other things, the advantage of using this saw will be manifest.

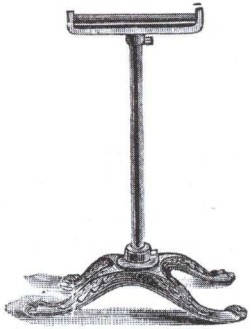
The Blades used for cutting are our Star Hack Saws, 10, 11 and 12 inches in length. The only expense is the comparatively slight wear of these blades, and the little time

taken in securing the stock to be cut in the vise to the Machine and setting the latter in motion.

No attention is required until the piece is cut off. The expense of blades is small, as one blade will cut off a steel shaft 4½ inches in diameter several times. The Machine should be run from forty to forty-five revolutions per minute. It is certainly a valuable labor-saving tool for the Blacksmith Shop, the Tool or Machine Room, as it can be put to many uses not at once suggested to the mind.

Price of Star Power Saw, - - - - - - $25 00

We also manufacture a Rest, adjustable to various heights, to be used when long pieces are cut in the Machine.



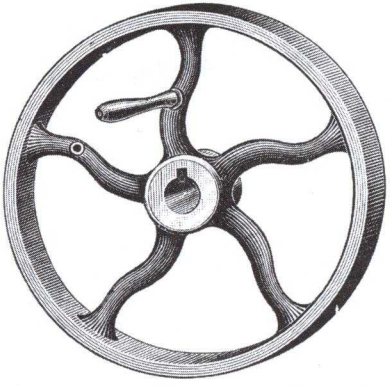
Price of Rest, - - - - - - - each, $1 50

We are the only headquarters for Star Hack Saw Blades.

Price, per dozen, 55c., 60c., 65c., 70c., 85c., 95c., $1.05.

Length of blade, 6, 7, 8, 9, 10, 11, 12 inches.

☞ For Brass work or thin tubing our blades with 23 points will prove most satisfactory. Ordinary stock has 14 points.



HAND WHEEL FOR POWER SAW.

We are occasionally asked for Power Saws to be run by hand power. For such work we furnish a heavy drive wheel, and while we do not claim the work can be done faster than with ordinary hand saw frame, it can be done easier, and with saving of blades.

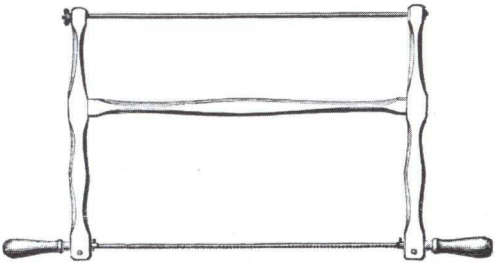
Price of Machine with Hand Wheel, $27 50

" Hand Wheel only..... 4 50

" Pulley only..... 2 00

Any of our Machines can be used with either Hand Wheel or Pulley.

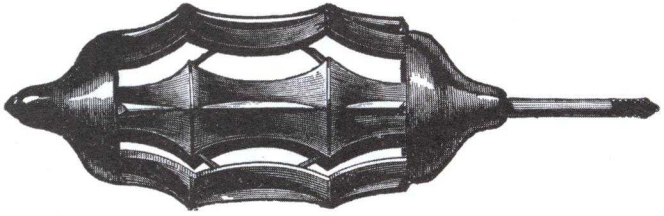
TURNING SAW.



This frame is made of birch-wood, with ebonized handles. There is an index on each handle, to show the operator just how far to turn each. The friction is regulated by screws. It is quite superior to most other kinds in the market.

Frame, with one blade, each.....$1 00
18-inch blades, per dozen..... 2 00

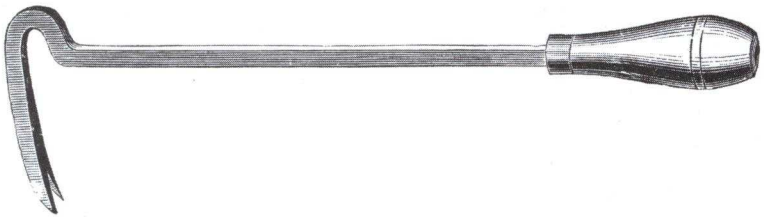
PRATT'S PATENT ELASTIC BOILER TUBE SCRAPER, No. 1.



This has been the leading Tube Scraper in the market for many years and has always given satisfaction. The sizes begin at 1½ inches and run by quarter inches up to 4 inches.

Price, per inch..... $1 00

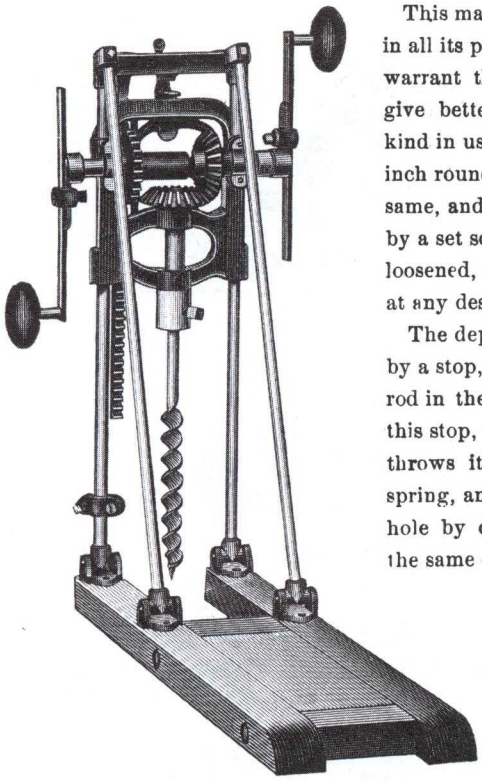
PELICAN NAIL PULLER.



The Pelican Nail Puller is the least expensive, yet the most rapid working nail puller in use. It is made of the best tempered steel and is warranted to do perfect work. It weighs only one pound, and takes but little room in a carpenter's chest. To be worked with a hammer. We regard it as one of the most useful tools which we have put upon the market.

Price, per dozen.....$9 00

MILLERS FALLS BORING MACHINE.



This machine has been fully perfected in all its parts, and is now sold with full warrant that it will do better work and give better satisfaction than any other kind in use. The frame is made of half-inch round steel rods; the braces are the same, and attached to the rods at the top by a set screw. When this set screw is loosened, the frame falls over so as to bore at any desired angle.

The depth of hole to be bored is fixed by a stop, as seen on the left-hand upright rod in the cut. When the frame strikes this stop, lift the latch, and the machine throws itself into gear by the use of a spring, and the Auger is lifted out of the hole by continuing to turn the crank in the same direction.

When the Auger is drawn from the hole, the frame hangs itself up until the machine is moved to the next hole; then it is dropped down by turning the crank back until the Auger strikes the wood, when it is thrown out of gear, and proceeds to bore the next hole. As seen in the cut the machine has adjustable cranks, which fully regulate its speed and power.

We do not desire the reputation of making the cheapest goods in market, but we mean to deserve the name of making the best.

PRICES.

Machine, without Augers - - - - - - $7 50

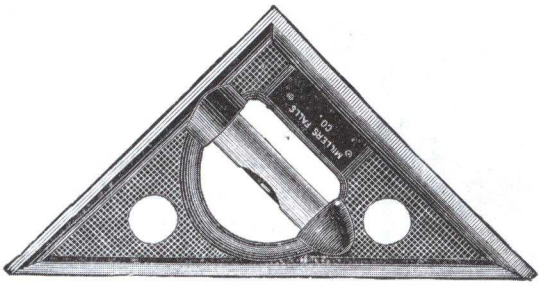
Augers in sets - - - 18 - - - 23 - - 41 quarters.

$4 50 $5 50 $10 25

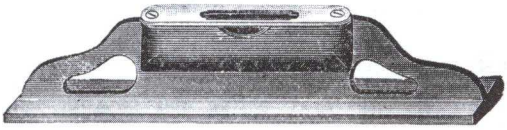
SIZES OF AUGERS.

(1, 1½, 2) (1, 1¼, 1½, 2) (½, ⅝, ¾, ⅞, 1, 1¼, 1½, 1¾, 2)

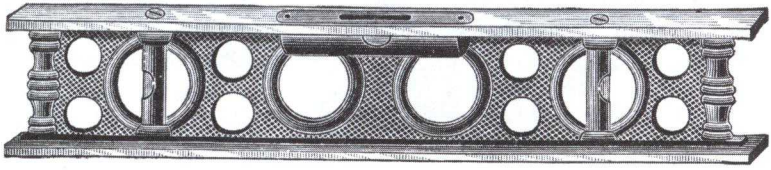
GOODELL'S PATENT IRON LEVEL.



No. 20.



Nos. 21 and 22.



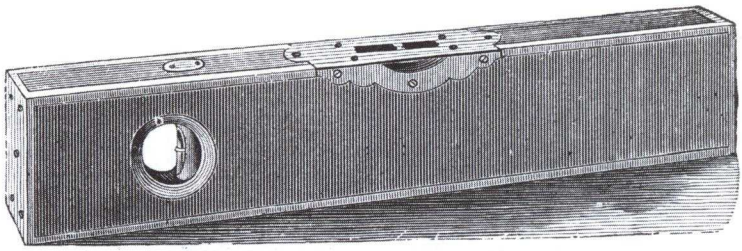
Nos. 23, 24, 25 and 26.

These are our latest improved Iron Levels.

PRICES.

No. 20.—	4 inch Right Angle Triangle Level, per doz.,		$9 00
" 21.—	4 " Bench Level - - -	"	6 00
" 22.—	5 " " " - - -	"	7 20
" 23.—	6 " Double Plumb Level - -	"	18 00
" 24.—	12 " " " " -	"	21 00
" 25.—	18 " " " " - -	"	24 00
" 26.—	24 " " " " -	"	30 00

STRATTON'S LEVELS.



The above cut represents our No. 1 ADJUSTABLE PLUMB and LEVEL. The corners are protected from injury and preserved true and perfect by Brass Rods extending the entire length of the Level, securely attached to the wood. These Levels have two ornamental Brass Lipped Side Views, heavy Brass Top and end plates, and are made of the best thoroughly seasoned Mahogany and Rosewood, Polished.

PRICES.

		Rosewood.	Mahogany.
No. 1.	22 inch ..... Each	$6 50	$4 70
	24 " ..... "	7 00	4 85
	26 " ..... "	7 25	5 00
	28 " ..... "	7 60	5 15
	30 " ..... "	8 00	5 40

No. 2.—Patent adjustable Mahogany Plumb and Level, 2 ornamental Brass Lipped Side Views, heavy Circular End Top Plate, Tipped, Polished, 26, 28 and 30 inch..... Each $3 60

No. 3.—Is like No. 2, with Tips like No. 4; 26, 28 and 30 inch..... " 3 00

No. 4.—Pat. Adjustable Mahogany Plumb and Level, two Side Views, heavy Circular End Top Plate, Tipped, Polished, 26, 28 and 30 inch " 2 10

No. 5.—Pat. Adjustable Cherry Plumb and Level, two Side Views, Heavy Circular End Top Plate, Polished, 26, 28 and 30 inch..... " 1 50

No. 6.—Mason's Patent Adjustable Mahogany Plumb and Level, two ornamental Brass Lipped Side Views, heavy Circular End Top Plate, Polished, 36 inch..... " 3 25

No. 7.—Mason's Level Mahogany Adjustable Level and Plumb, two Side Views, heavy Circular End Top Plate, Polished, 36 inch..... " 2 50

No. 8.—Mason's Level Cherry Adjustable Level and Plumb, two Side Views, heavy Circular End Top Plate, Polished, 36 inch..... " 2 00

No. 10. Machinist's Level. The Machinists' Levels have Brass Views, heavy Brass Top and End Plates, and Brass Corners. Rosewood, Polished.

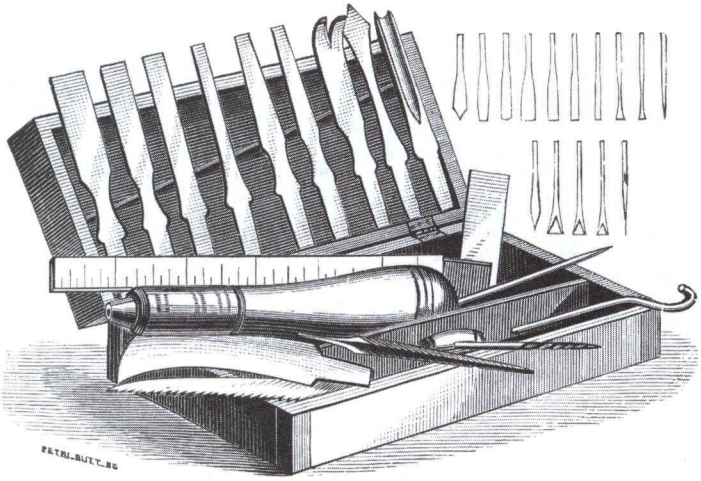
6½ inch, without Plumb	"	1 10
8 " with "	"	2 00
10 " " "	"	2 40
12 " " "	"	2 60

No. 11.—Pocket Level. Brass, Embossed and nickel-plated. 6 in. long, ⅝ inch square..... " 1 50

No. 12.—Pocket Level. Brass, nickel-plated. Cylindrical, with base plate; round ends. 2½ inch ..... " 0 75

3½ inch..... " 0 90

FAMILY TOOL CHEST.



No. 1.—Contains a complete assortment of Cast Steel Tools (20 in number), also a patent Adjustable Holder, with an additional number of 12 Brad-awls, Chisels, etc., and all enclosed in a nice Walnut Case.

Per dozen..... $36 00

No. 2.—Contains an assortment of Cast Steel Tools (9 in number); also a Patent Adjustable Holder, with an additional number of Brad-awls, Chisels, etc., and all inclosed in a neat Walnut Case. Especially adapted to the wants of every family.

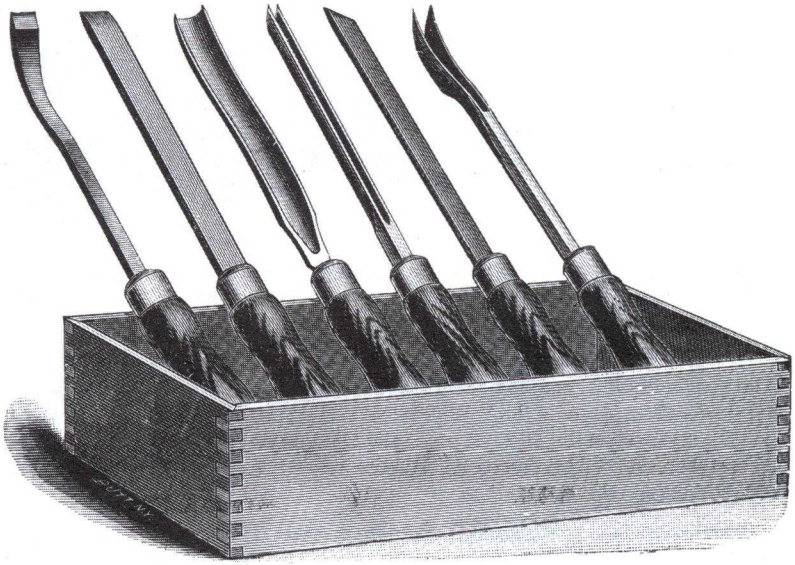
Per dozen..... $24 00

FAMILY TOOL CHEST, No. 3.

This is a Bass Wood Case with sliding cover and mahogany stained. In the box is a Universal Tool Handle, five inches long, which will hold the tools as seen in this cut, and also all other tools with shanks ¼ of an inch round or square and smaller. The eight tools in the box are all of the highest quality, and will prove very useful. Each tool is four inches long; one saw, one gimlet, one brad-awl, one reamer for wood or iron, one file, one screw driver, one gouge, one chisel.

Per dozen..... $9 00

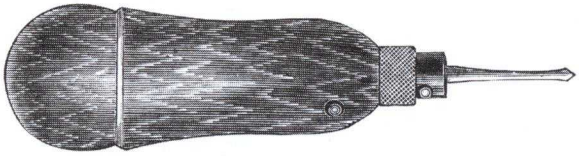
CARVING TOOLS.



No. 1. Six tools in a wooden box. Per dozen sets, $12 00
" 2. " " " " " " " " 18 00

These tools are forged from best quality of steel and are fully warranted. They have Rosewood Handles, and are sharpened ready for use.

CRISPIN'S AWL.



This is a tool for everybody. It has a hollow ebonized handle, five inches long, and weighing three ounces. It contains inside, on a spool, fifty feet of best waxed linen shoe thread. The spool is also hollow, and contains three awls and five needles of various shapes and sizes. The thread fits the needles and the awls fit the handle, and are held by a screw, as seen in the cut. It is for use in the house, stable, field, camp or on the road, for making immediate repairs, when one use of it will be worth more than its whole cost.

Price, per dozen - - - - - - - $3 00

TOOL HOLDER.

This cut represents the general appearance of all the three kinds of Tool Handles which we make. They are made of Rosewood or Cocobola with Lignumvitæ Caps, highly polished and of beautiful appearance. The ferrule and jaws are heavily nickel-plated.

The jaws will hold, not only the tools contained in the hollow handle but all other things from a needle to a mill-file. No other Tool Handle in market will do this. It also answers the purpose of a hand-vise. The handles are much larger than this cut, the length being as follows: No. 1, 6 inches; No. 4, 6½ inches; No. 2, 5½ inches; No. 5, 7½ inches.

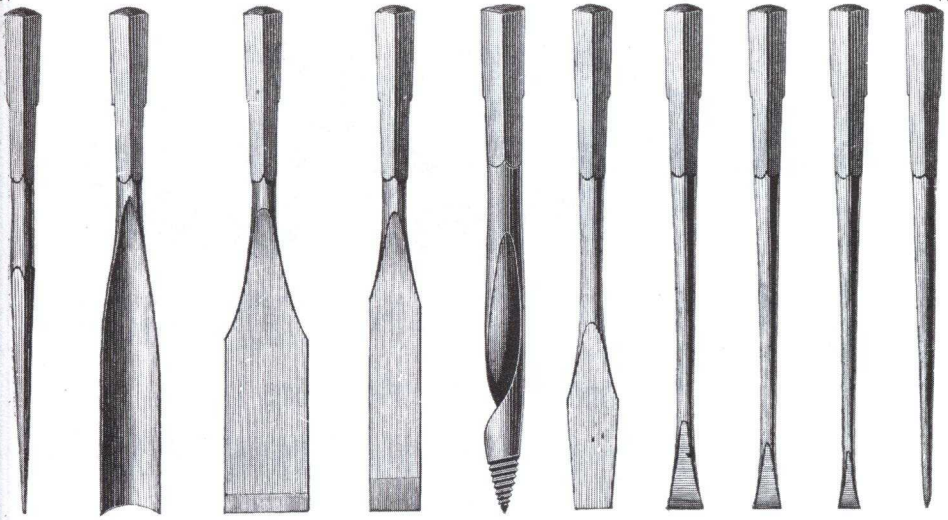
The tools are made from Steel of the highest grade, tempered by men of great experience, honed to a fine cutting edge, and are all highly finished. They are made for service and will give the greatest satisfaction. The Jaws in the handle shut over the shoulders of the tools (as seen in the cuts) so as to make it impossible to pull them out when in use.

The tools in each holder are about the size represented in the cuts. These goods bear the highest price of any in market, but their quality is as much higher as the price.

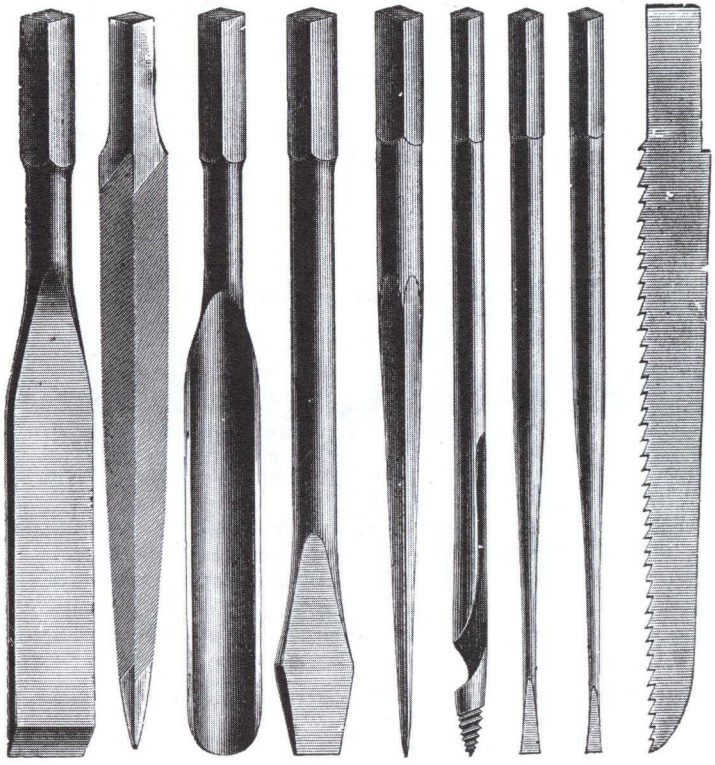
No. 1, with 20 tools, - - -	per dozen,	$12 00
" 2, Solid Maple handle, (no tools),	"	4 00
" 4, with 11 tools, - - -	"	12 00
" 5, " 11 " - - - -	"	18 00

TOOLS FOR No. 1 HANDLE.

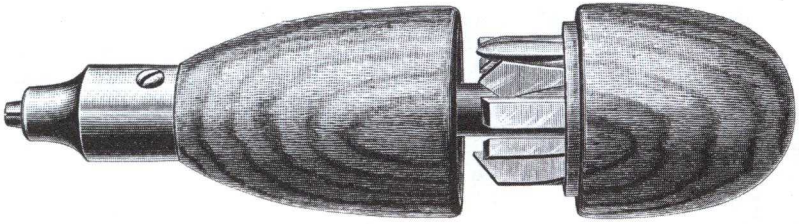
TOOLS FOR No. 4 HOLDER.



TOOLS FOR No. 5 HOLDER.



TOOL SET No. 6.



The handle is made of cocobola wood, and as shown in the cut is arranged with cells for the assortment of twelve tools. The tools are made from best quality of steel, and will give satisfaction.

Length of handle 4¼ inches, weight 6 ounces.

Price.....Per doz., $9 00

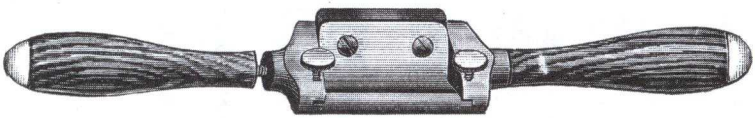
SPOKE SHAVE No. 1.

The circular shape of this tool enables it to work in smaller circles than other shaves.

The angle of the knife is such that it cuts instead of scraping the grain of the wood. Either handle can be removed to work in cramped places.

Price.....Per doz., $9 00

FOUR FACED SPOKE SHAVE No. 2.



This Shave has a throat regulator which will present to the knife four faces: one flat, two oval or convex and one concave.

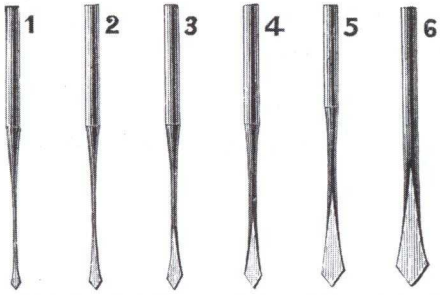
With either face a wide or narrow throat may be had. The regulator can be changed in a moment by use of the two thumb screws, as seen in the cut.

The knife is also adjustable by screw like other shaves. Either handle may be taken off to work in cramped places. The body of the tool and metal tips to the cocobola handles are polished and nickel-plated. All that any other shave will do, this will also do, and then it will do some more.

Length of blade 2 inches, weight 10 ounces, extreme length 11 inches.

Price.....per doz., $12 00

DIAMOND DRILL POINTS.



The cut represents the exact size of the drill points.

Price for set of six drills ..... 25 cents

PRATT'S KNIFE SHARPENER.

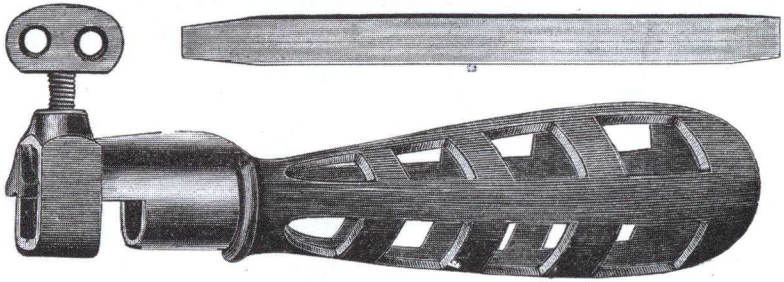
In offering this article we claim to have something entirely new and original in design.

It consists of a thin steel blade seven inches in length, of same quality and temper as our Star Hack Saw Blades, and is supported in a nickel-plated handle as shown in the cut.

With it the dullest knife may be quickly brought to a cutting edge, and so far as the Carving Knife, Chopping Knife, etc. is concerned, the grindstone may be dispensed with. What our Star Hack Saw is to the metal worker, these sharpeners will be to the man who does the carving. If hardware and cutlery dealers will try them in their own homes, they will not then hesitate to recommend their customers to invest. In using, draw the knife across the sharp corner edge of the blade and finish on the flat edges. The V shaped slots in the hand guard serve as skewer pullers.

Price..... Per doz., $6 00

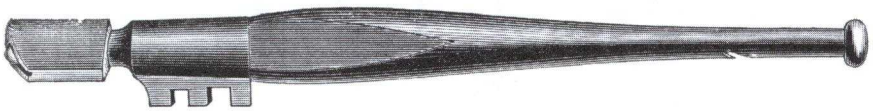
UNIVERSAL HANDLE.



This Malleable Iron Handle is five inches long and has a Japan finish. Weight of handle, five ounces. It is strong, durable, and will hold perfectly files of all size and shape tangs from a 14-inch mill file to the smallest size in use. It will hold equally well twist drills, gimlets, screw-drivers and all tools with shanks less than 3-8 of an inch square, round or flat. It will also answer most of the purposes of a hand vise, and will sell at sight anywhere.

Price of handle only ..... Per doz., $1 80
" " " with first quality screw-driver as shown in cut... " " 3 00

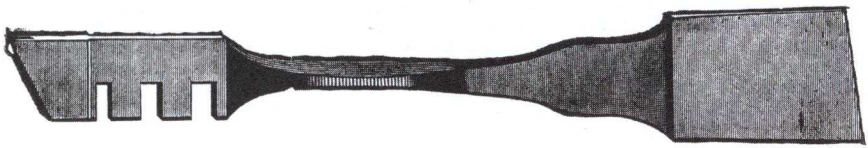
MILLERS FALLS GLASS CUTTERS.



0

1

2



4

5

7

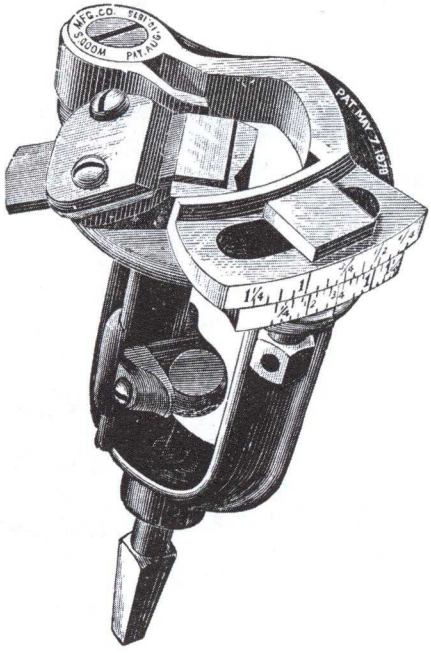
13

No. O, price, - - - per gross, $24 00

This cutter has an Ebonized Wood Handle. It works on the same plan as the ordinary Diamond Cutter with a loose head.

No. 1. Assorted with extra care, polished finish, $20 00
" 2. Malleable Iron Handle, Putty Knife combined, bronzed, - - - - 20 00
" 4. Putty Knife and Glass Cutter combined, 12 00
" 5. Heavy, for Cutting Plate Glass, - - 12 00
" 7. Light Malleable Handle, - - 11 00
" 13. Putty Knife and Glass Cutter combined, - 12 00

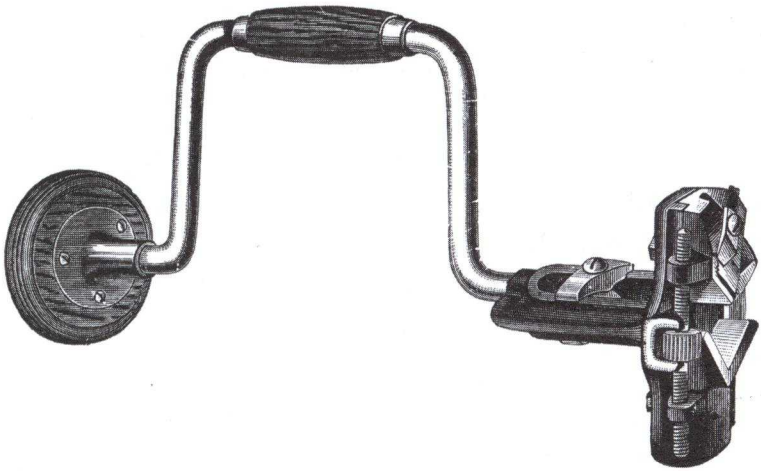
WOOD'S PATENT ADJUSTABLE HOLLOW AUGER.



Cuts from ¼ to 1¼ inches.

Price, - - - - - Each, $4 00

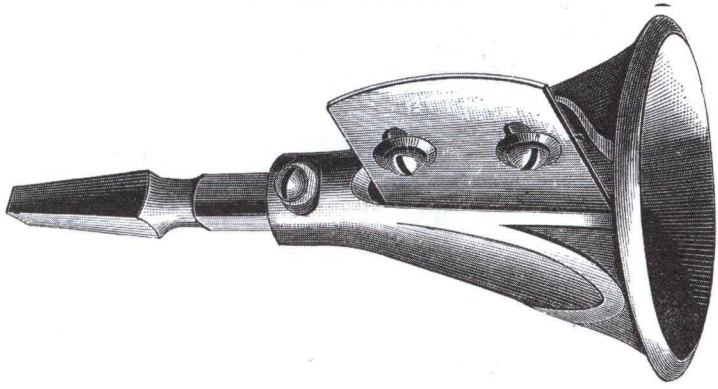
GOODELL'S PATENT ADJUSTABLE HOLLOW AUGER.



This auger is believed to be an improvement on anything hitherto in use. It has all the strength, durability and quick adjustability of any other, and it also has to drive it a Steel Bit Brace Sweep of the same size and finish as our No. 10 Brace, to wit: 14-inch sweep. As the Brace Sweep is fitted to the Auger, it must always work entirely true, which is not the case when used in an ordinary Brace. Besides, it often happens that the Bit Brace on hand is not large enough to drive a Spoke Auger. Adjustable to cut from $\frac{1}{4}$ to $1\frac{1}{4}$ inches.

Price, with Sweep, - - - Each, $4 00

SPOKE TRIMMER.



Price, - - - - - per doz., $6 00

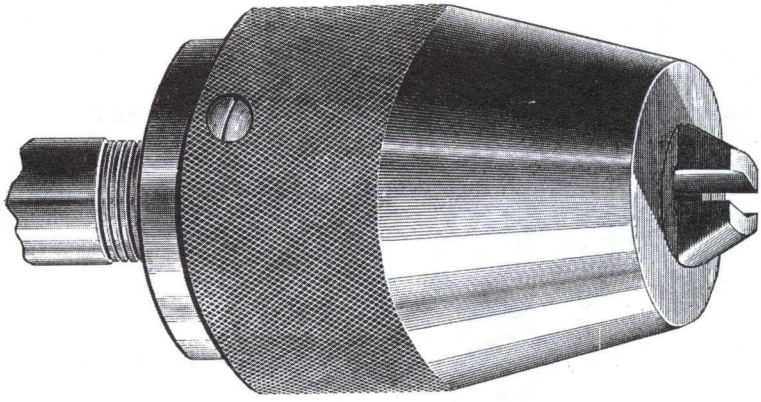
STAR CHUCK.

No. 1, with Shank $\frac{1}{2}$ inch in diameter, and 2 inches long, holds Drills from $\frac{1}{64}$ to $\frac{1}{8}$ inch - - Price, each $1 00

No. 2, with shank $\frac{5}{8}$ inch in diameter, and $3\frac{1}{2}$ inches long, holds Drills from $\frac{1}{32}$ to $\frac{1}{4}$ inch - - Price, each $1 50

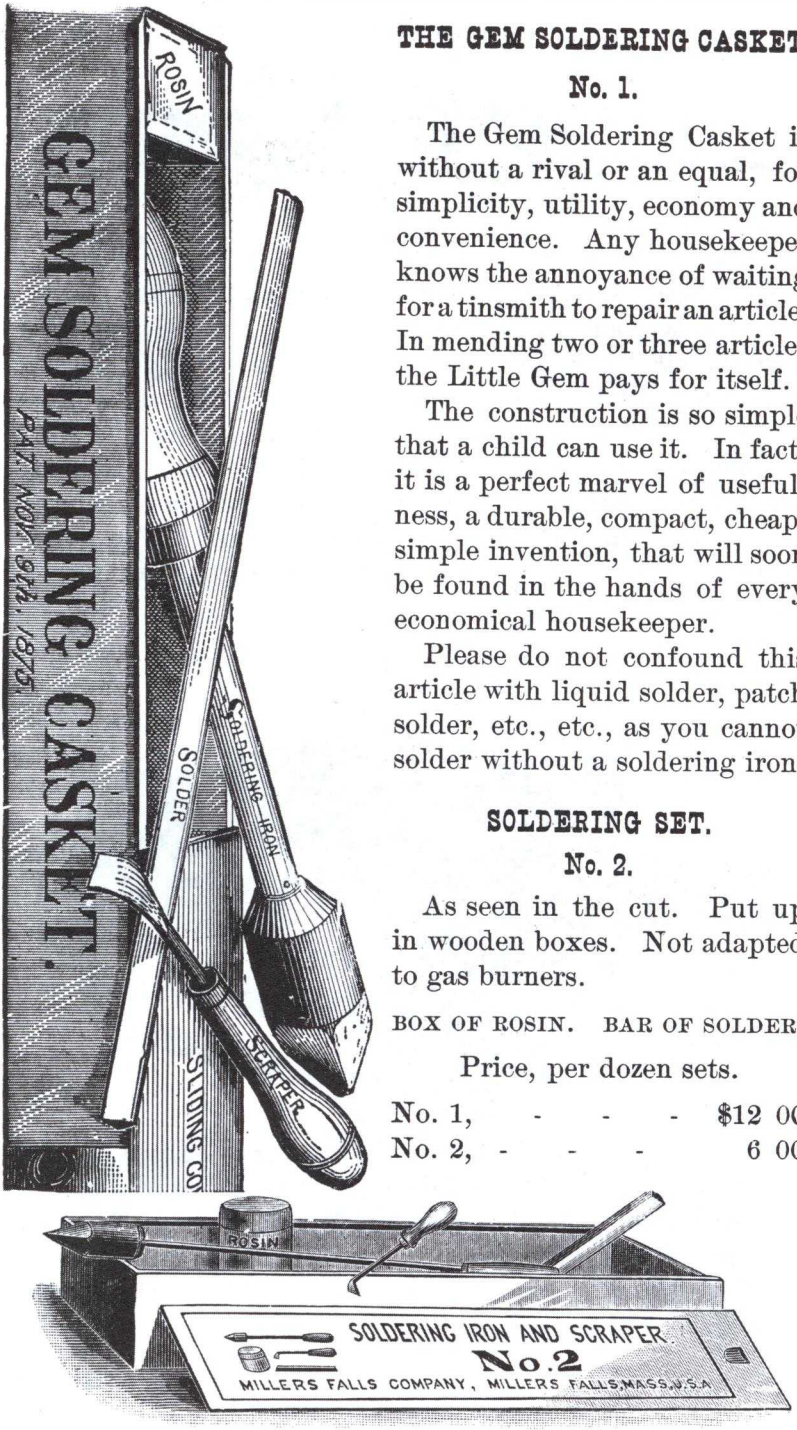
These Chucks are simple in construction, strong and durable, and are warranted to hold Twist Drills firmly, without danger of breaking. The Shanks (or Mandrels) are centered so they can easily be fitted to any lathe desired. The above cut represents No. 1, full size (except in length of shank).

STAR CHUCK No. 3.



This No. 3 Star Chuck weighs $2\frac{3}{4}$ pounds and will hold drills from $\frac{1}{16}$ to $\frac{1}{2}$ inch in diameter. The jaws are steel and are operated with a coiled wire spring which opens them as the screw is turned backward. We are using these chucks in our lathes, and find them as good as high priced ones which we formerly bought.

Price, each - - - - - - - - - $3 00



THE GEM SOLDERING CASKET.

No. 1.

The Gem Soldering Casket is without a rival or an equal, for simplicity, utility, economy and convenience. Any housekeeper knows the annoyance of waiting for a tinsmith to repair an article. In mending two or three articles the Little Gem pays for itself.

The construction is so simple that a child can use it. In fact, it is a perfect marvel of usefulness, a durable, compact, cheap, simple invention, that will soon be found in the hands of every economical housekeeper.

Please do not confound this article with liquid solder, patch solder, etc., etc., as you cannot solder without a soldering iron.

SOLDERING SET.

No. 2.

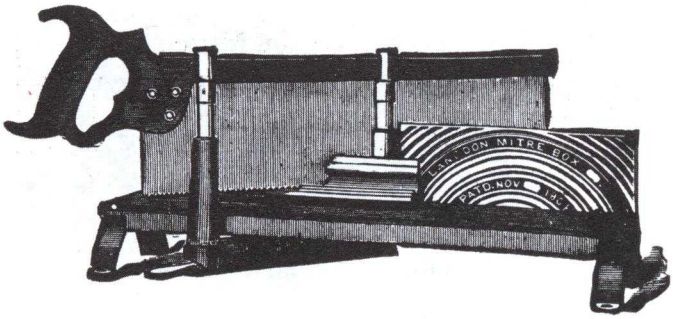
As seen in the cut. Put up in wooden boxes. Not adapted to gas burners.

BOX OF ROSIN. BAR OF SOLDER.

Price, per dozen sets.

No. 1, - - -	$12 00
No. 2, - - -	6 00

LANGDON ADJUSTABLE MITRE BOXES.



Sizes A, 1, 2, 2½ and 3.

Order by the No.

No. 1 is Size A, with	No. 4	Saw, for	wood,	15 x 2½		$6 50
" 2 "	"	"	" metal,	14 x 2½		6 50
" 3 "	"	"	with both saws			8 00
" 4 is Size 1, with	No. 6	Saw, for	wood or metal,	18 x 4		9 00
" 5 "	"	"	"	"	20 x 4	9 50
" 6 "	"	"	"	"	22 x 4	10 00
" 7 "	"	"	for wood,	24 x 4		10 50
" 8 "	"	"	"	26 x 4		11 00
" 9 is Size 2, "	"	"	"	22 x 4		11 00
" 10 "	"	"	"	24 x 4		11 50
" 11 "	"	"	"	26 x 4		12 00
" 12 is Size 2½, "	"	"	"	28 x 5		14 00
" 13 is Size 3, "	"	"	"	24 x 6		18 50
" 14 "	"	"	"	26 x 6		19 00
" 15 "	"	"	"	28 x 6		19 50
" 16 "	"	"	"	30 x 6		20 00

Nos. 13, 14, 15 and 16, now have the circular guides, as shown in the improved Box, (page 57) to give long angles when desired.

We are occasionally asked to sell Mitre Boxes *without Saw*. The following Mitre Boxes will be sold *without Saw*, if desired, but without guarantee, as Mitre Boxes cannot be depended upon to work with saws indiscriminately furnished, and we cannot afford to sacrifice our reputation, which has cost us years of labor to establish.

Sizes,	1.	2.	2½.
New Langdon	$7 00	$8 00	$10 25
Langdon and Improved	8 25	9 25	11 25

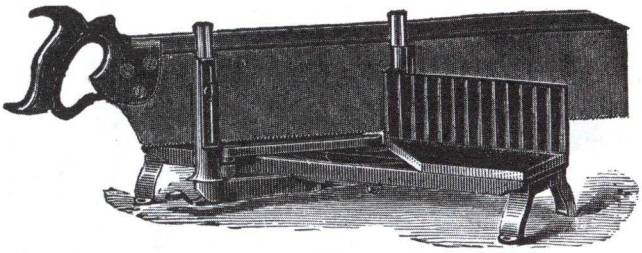
*No. 3, $16 25. No. A, $5 25.

Parties ordering Mitre Boxes who have Saws which they wish to save should send them to us to be adjusted to the box in which they are to be used. No charge will be made for the adjustment to the Box in which they are to be used, unless money is paid for *putting the Saw* in proper working order.

Such adjusted Boxes will be guaranteed to do good work if the saw is found good. Prices subject to change without notice.

Size A gives	3½	inches	width	at	right	angles,	2½	at	Mitre.	Weight	5½	lbs.
" B "	4½	"	"	"	"	"	3	"	"	"	6	"
" 1 "	6	"	"	"	"	"	4	"	"	"	10½	"
" 2 "	9½	"	"	"	"	"	6½	"	"	"	11½	"
" 2½ "	9½	"	"	"	"	"	6½	"	"	"	12½	"
" 3 "	12½	"	"	"	"	"	8½	"	"	"	25	"

THE NEW LANGDON MITRE BOX.



ARRANGED FOR BACK SAW.

We warrant all our Mitre Boxes to do perfect work when supplied with back saws fitted by us.

Sizes B, 1, 2 and 2½.

Order by the No.

No. 16½	is Size B,	with Saw	-	-	12 x 2, -	$4 50
" 17	is Size 1,	with No. 6 Saw,	for	wood,	18 x 4, -	7 75
" 18	"	"	"	"	20 x 4, -	8 25
" 19	"	"	"	"	22 x 4, -	8 75
" 20	"	"	"	"	24 x 4, -	9 25
" 21	"	"	"	"	26 x 4, -	9 75
" 22	is Size 2,	"	"	"	22 x 4, -	9 75
" 23	"	"	"	"	24 x 4, -	10 25
" 24	"	"	"	"	26 x 4, -	10 75
" 25	is Size 2½,	"	"	"	28 x 5, -	12 00

For prices of Boxes without Saws, see page 55.
For capacity of Boxes, see page 55.

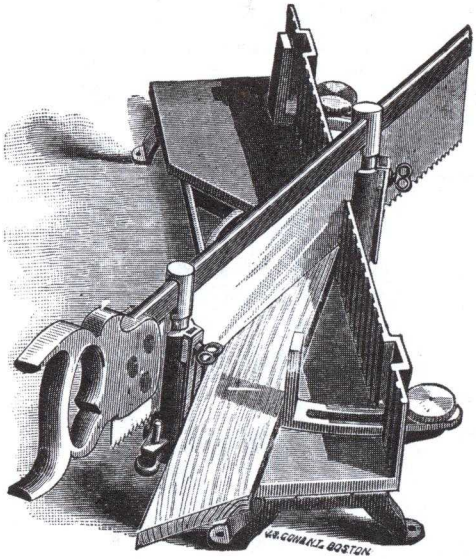
DIRECTIONS.

The positive angles of the NEW LANGDON, as notched in the segment, are the same as in the Langdon Mitre Box.

The NEW LANGDON has the ADDITIONAL feature of easy adjustment to ANY POSSIBLE ANGLE DESIRED.

Find the angle wanted by setting a bevel as required, then move the saw so that the angle formed by the saw and the back of the box shall conform to the bevel, fasten the saw in place by turning down the screw in the grooved rest or gib, directly above the letter A, as shown in the cut. This will hold the saw strongly in place for the time being, and a turn of the screw backward will place it in order again for the segment angles.

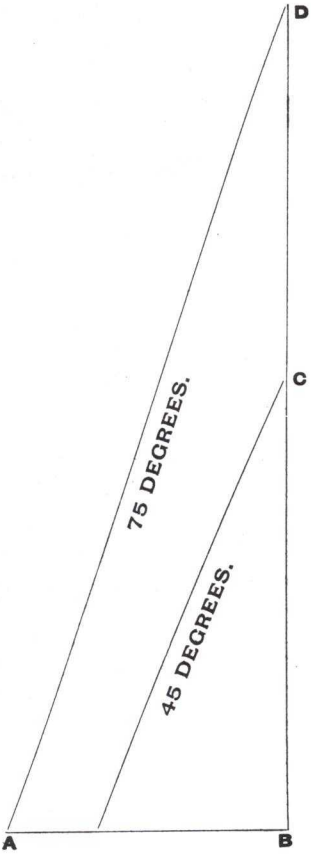
NEW LANGDON MITRE BOX IMPROVED.



Ordinary Mitre Boxes cut from right angles to 45 degrees, inclusive, as shown on the diagram, A, B, C.

The New Langdon Improved cuts, by using the circular arms or guides, from right angles to 75 degrees, on 2½ inch stuff, as shown on diagram A, B, D, varying more or less with width of stuff.

The only box adjustable for mitering circular work in patterns, emery wheels, and segments of various kinds,



Sizes 1, 2 and 2½.

Order by the No.

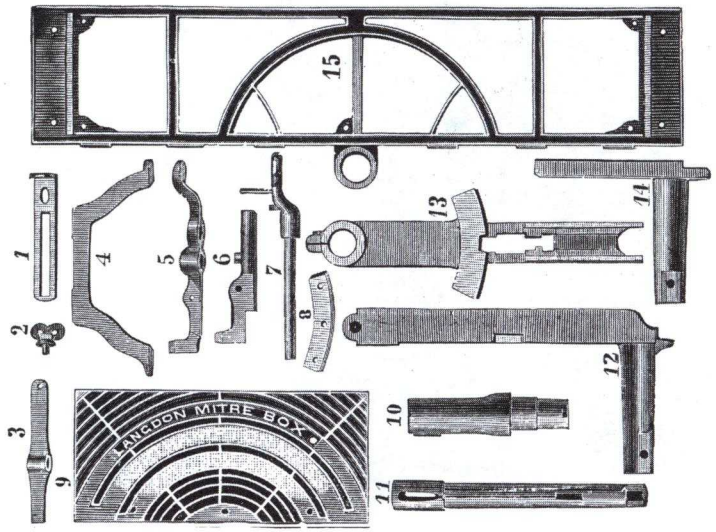
No. 26 is Size 1,	with	No. 6	Saw,	for wood,	18 x 4, -	$9 00
" 27	"	"	"	"	20 x 4, -	9 50
" 28	"	"	"	"	22 x 4, -	10 00
" 29	"	"	"	"	24 x 4, -	10 50
" 30	"	"	"	"	26 x 4, -	11 00
" 31 is Size 2,	"	"	"	"	22 x 4, -	11 00
" 32	"	"	"	"	24 x 4, -	11 50
" 33	"	"	"	"	26 x 4, -	12 00
" 34 is Size 2½,	"	"	"	"	28 x 5, -	14 00

For prices of these Boxes, without Saws, see page 55.

For capacity of these Boxes, see page 55.

NUMBER OF PARTS OF LANGDON MITRE BOX.

MADE TO INTERCHANGE.



☞In ordering Backs (No. 9) please state whether a Right or Left-hand Back is wanted.

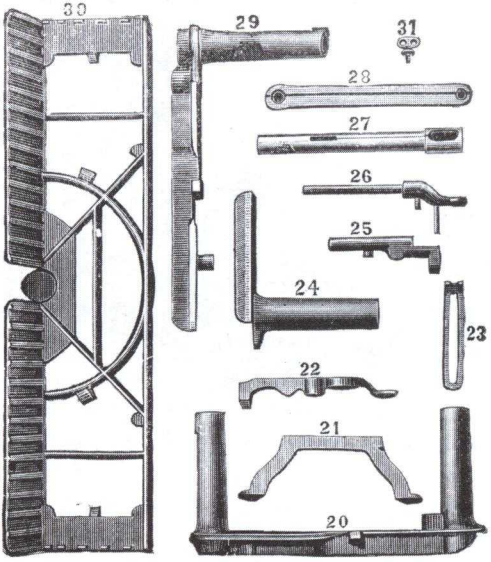
List of Parts (as shown in cut) and Price of same.

All parts of the Mitre Box are made to interchange, and will be sent by mail, if postage accompanies order, otherwise by express. Postage one cent for each ounce.

Persons ordering parts of Machines will please state the number of the piece wanted, and the size of the machine for which it is designed, and enclose the price and postage for the same.

		Mitre B Size 1.	Mitre B Size 2.	Mitre B Size 2½.	Mitre B Size 3.
1 Stop Gauge	each	$0 10	$0 10	$0 15	$0 20
2 Thumb Screw	"	10	10	10	10
3 Back Lever	"	15	15	15	30
4 Legs	"	15	15	15	30
5 Stop Lever	"	30	..	..	60
6 Stop Lever	"	..	45	45	..
7 Thumb Lever	"	.	20	20	..
8 Gib	"	25	25	25	50
9 Back	"	30	30	50	60
10 Back Posts	"	35	35	60	70
11 Saw Guides	"	55	55	90	1 10
12 Swinging Lever	"	90	..	..	1 80
13 Swinging Lever	"	..	1 00	1 00	..
14 Sliding Post	"	..	50	85	..
15 Bed	"	1 00	1 00	1 00	2 00
Bottom Board	"	10	10	15	20
Spiral Spring	"	5	5	5	5
Screws	"	5	5	5	5
Lever Pins	"	5	5	5	5
Set Screw	"	.	10	10	..

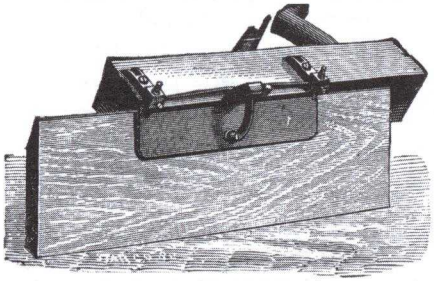
PARTS AND PIECES OF NEW LANGDON MITRE BOX.



Persons ordering parts will please state the number of the piece wanted, and the size of the machine for which it is designed, stating whether it is for the Langdon or New Langdon.

		No. 1.	No. 2.	No. 2½.
20 Swinging Lever	each	$1 25	$....	$....
21 Legs	"	15	15	15
22 Stop Lever	"	30	..	..
23 Stop Gauge	"	10	10	10
24 Sliding Gauge	"	..	50	85
25 Stop Lever	"	..	45	45
26 Thumb Lever	"	..	20	20
27 Guide	"	55	55	90
28 Gib	"	25	25	25
29 Swinging Lever	"	..	1 25	1 35
30 Bed and Back	"	1 45	1 45	1 60
31 Thumb Screw	"	10	10	10

THE ALEXANDER ADJUSTABLE JOINTER GAUGE.



Patented July 16, 1872.

We claim for this tool:

1st.—The ease with which it is attached to any Plane, Jack, or Jointer.

2d.—The great amount of time saved, without the use of Bevel or Try Square.

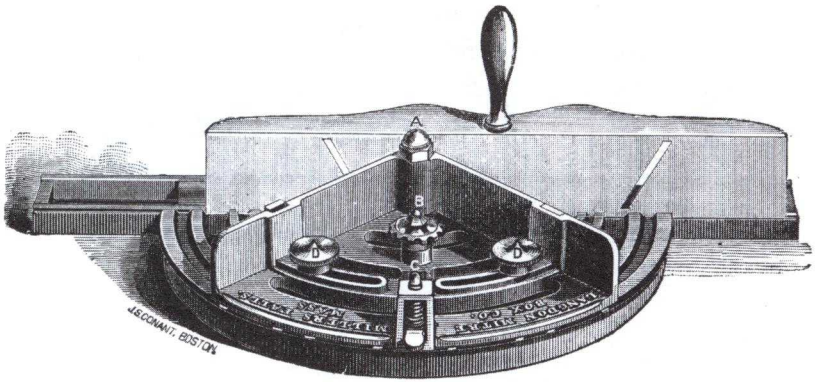
3d.—Is adjustable for Squaring, or to any Bevel desired.

4th.—The work completed in the highest state of perfection, even by inexperienced workmen.

Attach the Gauge to the plane so that the depression in the centre of the wing of the Gauge shall be directly opposite the cutting edge of the plane iron.

Price, per dozen.....$18 00

THE ROGERS MITRE PLANER.



Patented September 19, 1882.

It is made entirely of iron, and is arranged for planing any desired angle on straight or curved work.

The Main Bed Piece is semi-circular in form with a way or frame at its rear, on which the plane runs.

The upper or movable Bed Plate is in Quadrant form, having at right angles sides which act as guides for the material to be planed, and revolving on a pivot A, at the end, enables the user to form the desired angle for straight work, and place it in its proper position against the face of the plane. When the Quadrant or movable Bed Plate is in the centre of the main bed piece, its side elevations form an exact mitre, so that no change is required in planing the ends of parts for frames of four sides.

In the sides of the Quadrant are two adjustable guides or rests, kept in position by set screws D D.

The special objects of these rests is to enable one to finish the ends or angles on curved work with exactness.

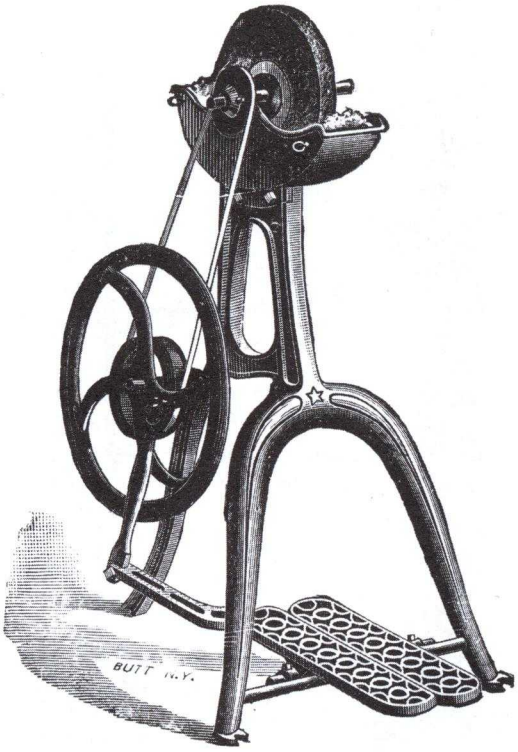
In preparing pieces for circular or oval work, frames, pulleys, emery wheels, circular patterns, etc., it is necessary to plane the ends of the various segments at varying angles. In planing these the point of the Quadrant near the plane and the adjustable guides form the rests required for accurate work.

The Quadrant is kept in position at any angle desired by pressing the catch, C, down into the notches prepared for it, or by the thumb-screw, B, and can be used in connection with the arms or guides, as desired.

The Planer is manufactured in three sizes, each supplied with iron planes.

Size 2, carrying plane irons, 2 inches wide, sold each for	$20 00
" 3½, " " 3½ " " "	25 00
" 4, " " 4 " " "	30 00
Extra Plane Irons, 2 inches, each	2 00
" " " 3½ " "	2 50
" " " 4 " "	3 00

FAMILY GRINDSTONE, No. 2.

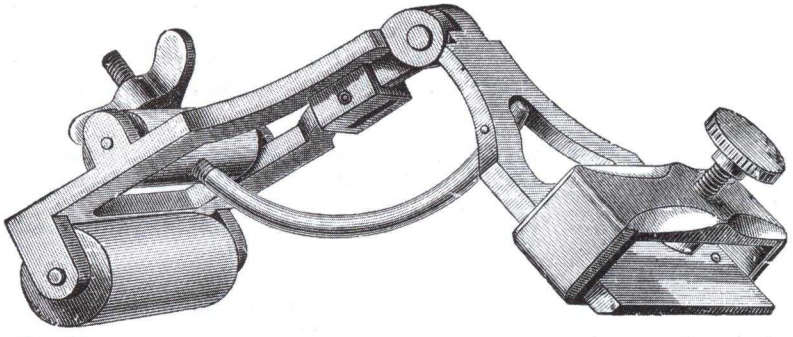


This is an iron frame Grindstone, running with a treadle and belt. Our wooden frame stone has worked itself into *such general use*, during the past ten years, that we were encouraged to believe that a nicer thing would take a still stronger hold of the market. What we now offer is very nice indeed, but we were compelled to list it 50 cents higher than the wooden machine.

We trust it will take the place of the old Family Grindstone, and give as much better satisfaction as its quality is superior.

Price, each.....$4 00

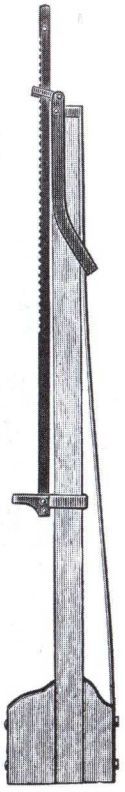
CHISEL GRINDER.



This is a new invention for holding Chisels, Plane Irons, etc., while grinding them. When put in the holder and brought in the right bevel with the adjusting screw, nothing is left to do but to bear it on the stone, and it will grind all right without further care.

Price, per dozen.....$9 00

Power's Wagon Jack.



Gentlemen's Wagon Jack, No. 3.

Power's Wagon Jack is made to meet the wants of the regular hardware trade. It is very compact, and occupies but little space in transportation or in the store. It is made of wrought and malleable iron. When the lever is depressed it is carried past the centre, so as to be self-locking. The lift is from 12 to 32 inches. It is the quickest working and most durable jack in market, and also the handsomest, being nicely japanned and ornamented.

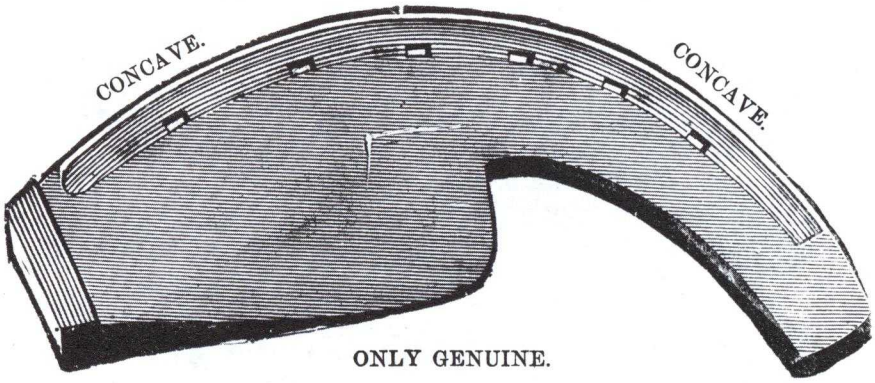
	Lift.	Length of Lever.	Will Raise.	Weight.	Price.
No.	1.—12 to 32 in.	13 in.	1,000 lbs.	11 lbs.	$18 00 per dozen.
"	2.—14 to 34 in.	16 in.	1,500 lbs.	16 lbs.	27 00 "
"	3.—14 to 32 in.	12 in.	400 lbs.	4 lbs.	9 00 "

GENTLEMEN'S WAGON JACK No. 3.

This Jack has a Wood Standard and Steel Lifter. It is 4 feet high, and weighs 4 pounds. The gentleman who uses it does not need to stoop down, as the Lifting Lever comes as high as the top of the wheel. It is much nicer than any other kind for light wagons and carriages.

Price, each.....75 cents.

"GREENFIELD" FORGED OX SHOE.



ONLY GENUINE.

Made under the Parker and Colburn Patents, from Burden's H. B. and S. Iron. Nail holes punched, and every shoe perfect.

The Parker and Colburn Patents cover broadly the dies in which the shoes are forged. We are the *only* licensees, and all parties are cautioned against using either of the dies or the forging mechanism or processes so protected, as our rights under said patents will be fully maintained.

While we can furnish either the *Concave Shoe* with *One Calk*, or the *Flat Shoe* with *Two Calks*, we emphatically recommend the Concave, with One Calk, for the following reasons, viz.:

First.—Because the entire bearing of the shoe should come upon the *shell* of the hoof, and not upon the *ball* or tender part of the foot, as is necessarily the case with the flat shoe. This principle is recognized by all experts in the shoeing of both oxen and horse, and will prevent a tendency to sore-footedness.

Second.—Because by having one calk only, the shoe can be cut off or lengthened and fitted more perfectly to the foot.

Third.—By having one calk only, the shoer *can make the other calk at any angle he desires.*

No. 1,	Full Length,	Concave,	5	inches,	weight per set of eight shoes,			3	pounds.
" 2,	"	"	5½	"	"	"	"	3¼	"
" 3,	"	"	6	"	"	"	"	4	"
" 4,	"	"	6½	"	"	"	"	5	"

Packed in boxes or kegs of 100 lbs., half each, rights and lefts. Full weight, and no charge for packages.

Price, for orders of	One Ton, or more	9	cents per pound.
" "	1,000 pounds, or more	9½	" "
" "	500 " "	10	" "
" "	Less than 500 pounds	10½	" "

Terms, Net Cash, 30 days.

Made ONLY by MILLERS FALLS COMPANY.

Formerly Forged by Greenfield Tool Company.

HILL'S SOLID STEEL ANVILS.

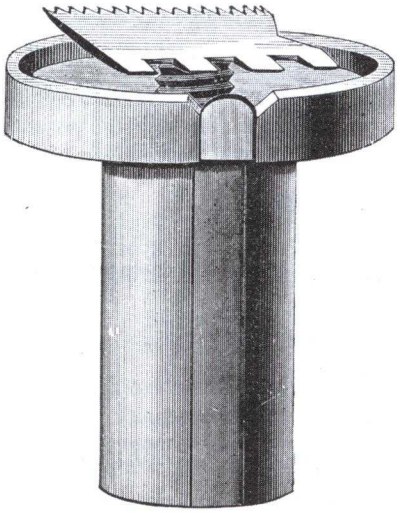
No. 1,	5	inches long;	1½	inches wide;	weight	5	lbs;	Price,	$2	00
" 2,	6	"	"	2	"	"	"	7	"	"	2	50
" 3,	7	"	"	2	"	"	"	9	"	"	3	00

These Anvils are not cast into this shape, but are forged from solid steel, and have a suitable Anvil temper throughout.

The Horn is 2 inches long in addition to the length of face given above. The face, sides and horn are nicely polished. The bottom part is japanned.

If dealers will take the trouble to show these superior goods, they will sell at sight.

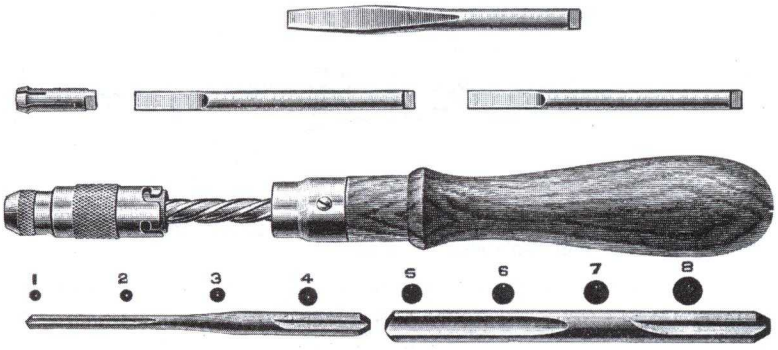
LANFAIR'S BENCH HOOK.



All that is required to set this hook in the bench is to bore a 2-inch hole ½ inch in depth, and a 1-inch hole the balance of the way through the bench, holding it in place with three screws. The Hook has four faces, and can be turned around readily and set to any height desired. The cut is full size.

Price .....per doz., $4 50

AUTOMATIC SCREW DRIVER.

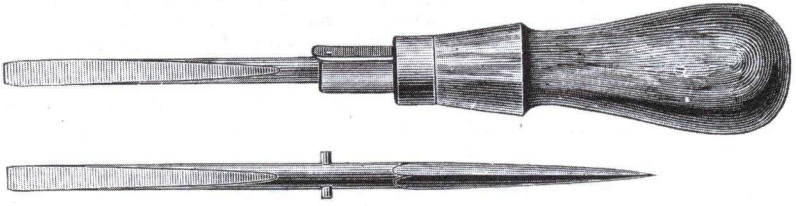


This Tool is much like others of the same class, but it is more highly finished and better made than any heretofore put on the market. It has one addition, which is nearly indispensable for satisfactory work, that is a patent revolving sleeve which the left hand grasps when the tool is working. While this sleeve is a great advantage in driving screws, it also enables the tool to be used as an automatic drill. The only additional expense is for the drill points. There is also a locking device which prevents the screw driver from falling out of engagement when held perpendicular. All the metal parts are highly polished and heavily nickel-plated. The handle is of Cocobola. Full length extended 17 inches. The three screw driver bits which go with each tool are 4 inches long, and made to fit screws of varying sizes.

Price of No. 11, without Drill Points, but with 3 screw driver bits, per doz., $15 00
" " 12, with 8 Drill Points and 3 screw driver bits..... " " 21 00

Packed one in a box.

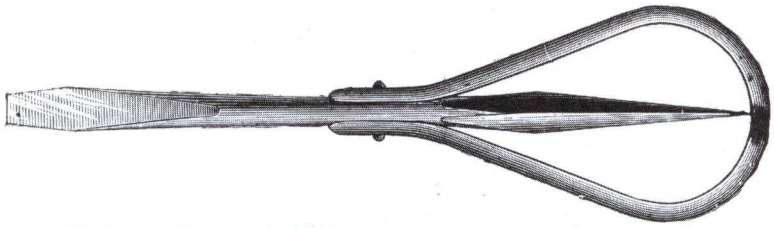
DUPLEX SCREW DRIVER.



Generally when a Screw Driver is used, some tool is wanted to make a hole for the screw. This Square Reamer on the reverse end of the driver is better for that purpose than a gimlet or any other tool. The tool can be turned around instantly, so as to use either end. It is hand-forged, carefully tempered, polished, and nickel-plated.

Price, complete, No. 1, Cocobolo Handle.....per doz., $4 80
" " " 3, Maple " ..... " " 3 60
Bits alone, to fit Handle..... " " 1 80

DUPLEX SCREW DRIVER No. 2.



Screw Driver and Reamer combined. Both Bit and Handle made of tempered steel, polished and nickel-plated.

Price.....per doz., $3 00

Each Tool in a Leather Case.

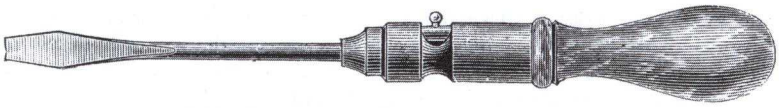
RATCHET SCREW DRIVER No. 1.

This is a Double Pall Ratchet Screw Driver. The handle is seven inches long, made of rosewood or cocobola, highly polished, and the iron part is heavily nickel-plated. With each handle is a set of three Bits, 5, 7 and 9 inches long, as seen in the cut. These are also polished and nickel-plated. It is in every respect as fine a tool as we can make.

Price, with Box.....per doz., $21 00

Extra Bits for same.....each, 20

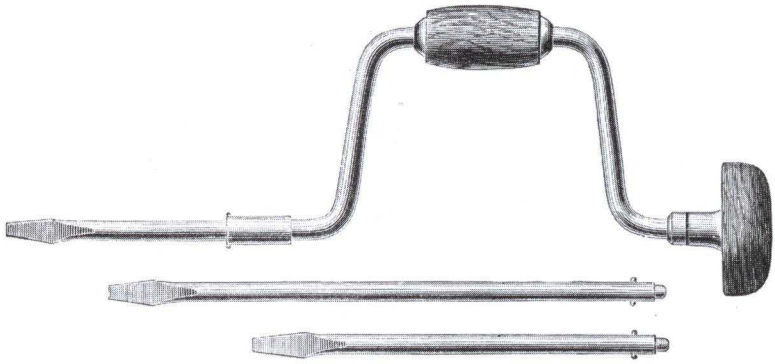
RATCHET SCREW DRIVER No. 2.



This is a Single Pall Ratchet Screw Driver. Like the No. 1, it drives a screw in or out with the Ratchet, or may be made stationary. The whole length is eleven inches. The handle is cocobola, both bit and handle highly polished, and the bit nickel plated as well as the metal part of the handle.

Price, with one Bit.....$12 00

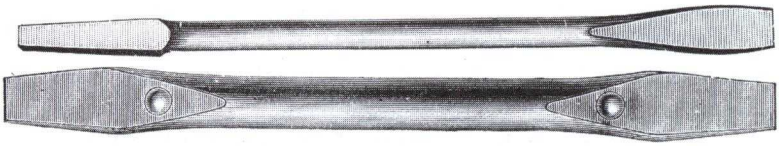
BRACE SCREW DRIVER.



The Brace has an 8-inch nickel-plated sweep, and a cocobola head. The Bits are 6, 9 and 12 inches in length. They are highly finished and will be found satisfactory in quality.

Price of sets, complete.....per doz., $18 00
" " extra bits.....each, 20

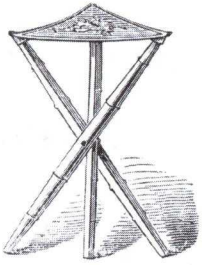
HAND FORGED ROUND SCREW DRIVER BIT.



There is a special demand for a Screw Driver Bit which will stand a great strain. Nothing hitherto in the market would fill the bill. We have made these drivers for special customers during the last four years, but hesitated to put them in our Catalogue on account of their high price. But many mechanics are willing to pay the price, and so we offer them at the following rates:

No. 1, 5 inches long.....per doz., $1 50
" 2, 8 " " ..... " " 2 00
" 3, 6 " " Double-ended ..... " " 2 00

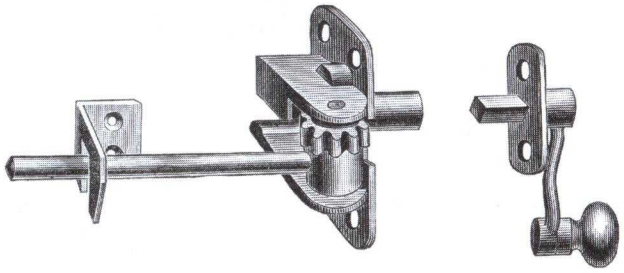
PORTABLE CAMP STOOL.



Made of second growth ash. Weight, one pound.

Price.....per doz., $6 00

MILLERS FALLS BLIND OPENER.



This a simple device for opening and closing blinds and shutters, without opening the window. In common with many others, we have long experimented with these Blind Openers, but in advance of any others we happened to strike the right thing, and the only thing, thus far, which will do the work to everybody's satisfaction.

Whatever hinges are on the blinds, they are not to be disturbed. A catch is placed in the middle rail of the blind, and a lever working in this, moves the blind either way. This opener locks the blind fast at any point where it may be when you let go of the crank.

The blind can be taken off for washing or painting, as it is not in any way bound to the opener.

They are put on without going outside of the room and in a few moments time. Full directions go with each set.

The crank and face plate which remain inside the room are highly ornamental, being polished and nickel-plated.

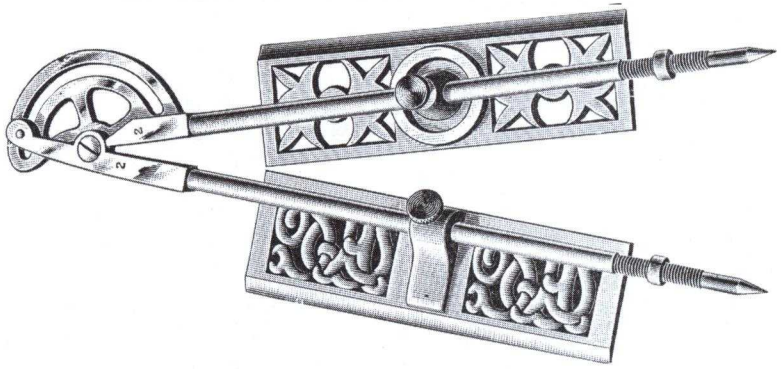
Price.....per set, $1 00

BIT GAUGE.

This cut shows the gauge in all of its parts. It will be seen that one bolt with thumb-screw tightens the clamps on the gauge spindle and auger bit at the same time. It will fit any size bit, and exactly gauge the depth of hole to be bored.

Price.....per doz., $3 00

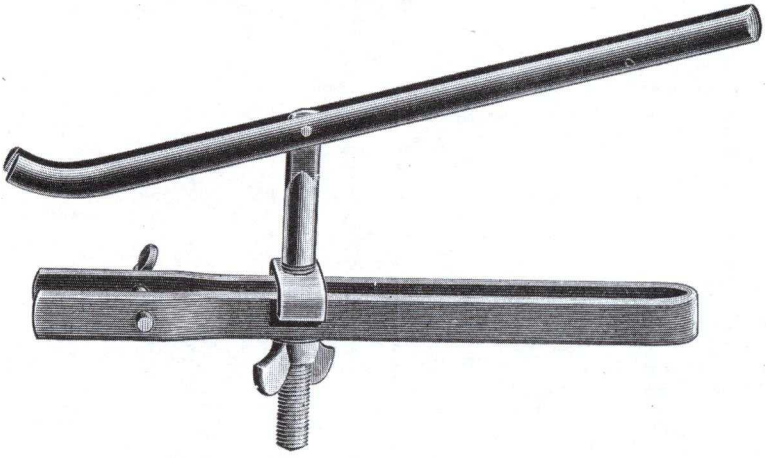
CALDWELL'S PATENT HAND RAILER.



With this tool any carpenter can form plans and put up stair-rails. A pamphlet showing diagrams and giving full directions for use will be furnished with each tool.

Price, - - - - - - - - - each, $5 00

MILLERS FALLS CORK SCREW LEVER.



This lever is made wholly of steel and is adjustable in three ways so as to fit every kind of bottle and every kind of cork screw in common use. The reason that Lever Cork Screws have largely gone out of use, is that they would not do their work. The reason why the Millers Falls Lever will come largely into use, is that it will do its work.

We sell them without cork-screws because they will fit all cork-screws in market.

Price, - - - - - - - - per doz., $3 00

Weight, 8 ounces.

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This catalog was reprinted from an original in the collection of Vincent L. Soukup, A Mid-West Tool Collectors Association member.

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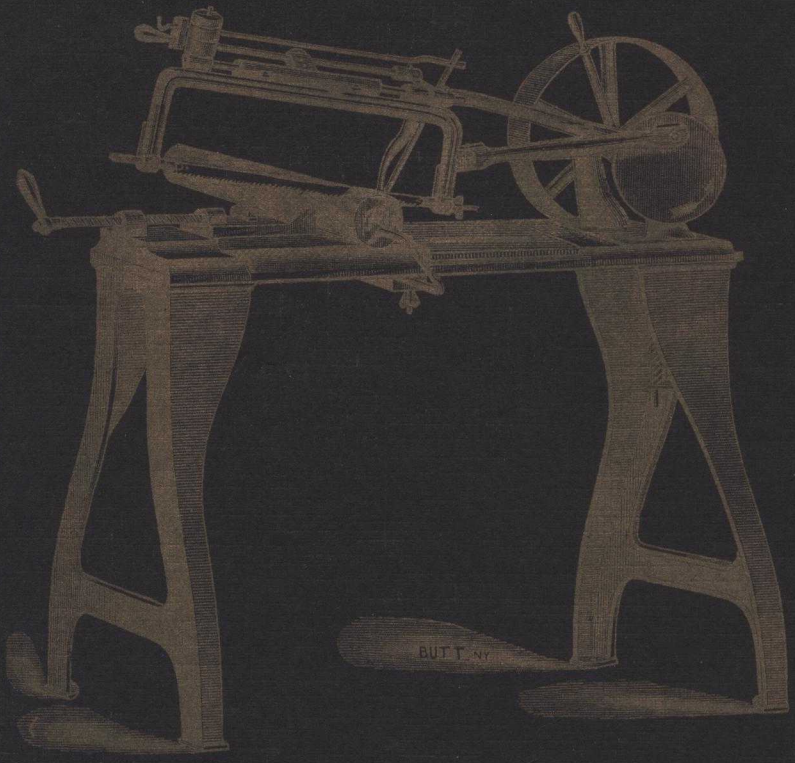
The Star Power Saw.

(See Page 38.)



MILLERS FALLS CO.,

93 READE STREET,

NEW YORK